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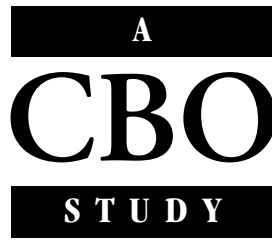
A
CBO
STUDY

OCTOBER 2006

**Recruiting,
Retention, and
Future Levels of
Military Personnel**



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Recruiting, Retention, and Future Levels of Military Personnel

October 2006

Notes

Numbers in the text and tables may not add up to totals because of rounding.

The years referred to in this study are fiscal years. The data presented in tables and figures are through fiscal year 2005. The text includes updates into fiscal year 2006 as available, including data on recruiting for the first 11 months of the fiscal year. The Department of Defense's Directorate for Accession Policy and Office of Reserve Affairs are due to release year-end data on recruiting later this month.

The main cover photo (showing a formation of marines and sailors aboard the amphibious assault ship *Kearsarge*) was taken by Airman Finley Williams; it is used courtesy of the Navy. The inset photo (showing recruits being sworn in at Fort Lee, Virginia) is used courtesy of the Army.



Preface

The U.S. military's ability to maintain the force levels required for operations in Iraq and Afghanistan rests on recruiting and retaining service members. Several of the military components did not achieve their recruiting goals during fiscal year 2005. In particular, all of the Army components missed their recruiting goals at the same time that the overall Army was attempting to increase its personnel levels and its number of combat brigades. In 2006, some military components have had a turnaround, approaching or meeting their quantity goals, but in some cases have done so at the expense of their goals for recruits' qualifications.

Prepared at the request of the Ranking Member of the House Committee on Armed Services, this study projects potential levels of personnel for all of the active, national guard, and reserve military components through 2010 and examines the components' ability to overcome any adverse trends in recruiting or retention through the use of incentives and other tools. In keeping with the Congressional Budget Office's (CBO's) mandate to provide objective, impartial analysis, this study makes no recommendations.

Heidi Golding and Adebayo Adedeji prepared the analysis under the supervision of Matthew S. Goldberg and J. Michael Gilmore. Daniel Frisk, along with Victoria Liu and Joshua Lee, contributed to the analysis. Nabeel Alsalam, David Moore, Matthew Schmit, and Robertson Williams provided comments. Stanley A. Horowitz of the Institute for Defense Analyses reviewed the study. (The assistance of an external reviewer implies no responsibility for the final product, which rests solely with CBO.)

John Skeen edited the manuscript, and Christine Bogusz and Loretta Lettner proofread it. Cindy Cleveland produced drafts of the manuscript and prepared the tables. Maureen Costantino, with assistance from Christian Howlett and Allan Keaton, prepared the report for publication and designed the cover. Lenny Skutnik printed the initial copies. This publication, along with others by CBO, appears on the agency's Web site (www.cbo.gov).



Donald B. Marron
Acting Director

October 2006



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Summary

Since the terrorist attacks of September 11, 2001, ongoing military operations—including Operation Iraqi Freedom, Operation Enduring Freedom, and Operation Noble Eagle—have required substantial increases in the number of military personnel deployed.¹ As of July 31, 2006, about 180,000 active-duty service members and another 60,000 national guard and reserve members were deployed in support of those operations. The Army, supplying the bulk of the personnel, had about 110,000 active-duty troops and 50,000 Army National Guard and Army Reserve members deployed to the Iraq and Afghanistan theaters at that time.

The military's ability to maintain the force levels required to continue conducting operations in Iraq and Afghanistan rests on its ability to recruit and retain service members. Some military analysts and policymakers have expressed concern that the ongoing operations could detrimentally affect both recruiting and retention. The proportion of youth who say that they may join the military increased after September 11, 2001, but according to the Department of Defense's (DoD's) surveys of parents and other adults who influence youths' decisions, a majority in 2005 said that they were less likely to recommend military service because of the war in Iraq. In addition, some military services, including all of the Army components, faced recruiting shortfalls in 2005, although some components, including all of the Army ones, have had a turnaround in 2006, approaching or meeting their quantity

goals, albeit sometimes at the expense of their goals for recruits' qualifications. Furthermore, recent studies indicate that the current combat operations could negatively affect retention in some segments of the active-duty military.

In this analysis, the Congressional Budget Office (CBO) examines the recruiting and retention rates for enlisted personnel within each of the military components, the factors that may influence enlistment and reenlistment, and the implications of changes in each component's success in recruiting and retaining service members. CBO presents a more in-depth discussion for the Army components—the active Army, the Army National Guard, and the Army Reserve—than it does for the other military components—the Marine Corps, the Navy, and the Air Force—because the Army components are deploying the largest numbers of personnel to the military operations in Iraq and Afghanistan and they have also all faced difficulties either maintaining or increasing their end strength (the number of service members in a component's force at the end of the fiscal year) in accordance with the Congress's authorization.²

This study focuses on attaining end-strength goals as a measure of the military's ability to sustain operations.³ In turn, there are two key determinants of future end-

1. Operation Iraqi Freedom consists of military operations in Iraq and neighboring states; Operation Enduring Freedom consists of military operations in and around Afghanistan and other overseas counterterrorism activities. Operation Noble Eagle refers to domestic homeland security missions, such as combat air patrols over major metropolitan areas, undertaken by the Department of Defense in response to the terrorist attacks of September 11, 2001.

2. Authorized end strength represents a goal set by the Congress in the National Defense Authorization Act for a fiscal year.

3. A number of factors besides end strength also affect the military's ability to sustain operations overseas, for instance, the redeployment of units to the Iraq and Afghanistan theaters from elsewhere in the world (outside the United States). See Congressional Budget Office, *An Analysis of the U.S. Military's Ability to Sustain an Occupation in Iraq: An Update* (October 5, 2005).

strength levels: yearly accessions and continuation rates.⁴ (CBO's analysis focuses on enlisted personnel.) Accessions and continuation rates are related in a complex way. A trained service member who separates from the military must be replaced by more than one accession to account for recruits who separate during training or during their first few years of service.

On the basis of 2005 end strength, 2005 continuation rates for personnel in each year of service, and 2006 accession goals, CBO estimated the future end strength of each military component separately, compared those results to the levels authorized by the Congress, and calculated the effect of changes in end strength on the number of troops available for deployment. CBO also modeled other scenarios for end strength, varying assumptions about accessions and continuation rates.

Active Army

The active Army was the only active component that did not achieve its recruiting goal in 2005, falling short of 80,000 accessions by 6,600, or 8 percent. In addition, it drew from the participants in its Delayed Entry Program (DEP)—in effect, borrowing from future end strength—to reach the accession level that it did. In response to its recruiting difficulties, the Army substantially increased its recruiting resources during the year. In addition, lawmakers increased the educational benefits provided to service members under the Montgomery GI Bill, among

other things. For 2006, the Army again set its goal at 80,000 recruits.

CBO examined the effectiveness of various recruiting resources (the number of recruiters, advertising, enlistment bonuses, and educational benefits) to determine which of the Army's options would be most effective in increasing enlistments and whether the Army's actions to date should be sufficient for meeting its recruiting goals. According to CBO's review of relevant analyses, placing more recruiters in the field has the largest effect on the number of enlistments. A 10 percent increase in the number of recruiters would boost enlistments by between 4 percent and 6 percent, while a 10 percent increase in the expenditures on advertising, enlistment bonuses, or educational benefits would increase enlistments by up to 1 percent.

By CBO's calculations, a force of 6,400 experienced recruiters—reflecting an increase of between 800 and 1,100 over the average number in 2005—could eliminate the shortfall of 6,600 recruits that the active Army experienced in 2005; such a force would cost between \$98 million and \$147 million, CBO estimates. Alternatively, eliminating that shortfall using only advertising or only enlistment bonuses would cost between \$137 million and \$195 million and between \$161 million and \$429 million, respectively.

By the end of 2005, the active Army had increased its total number of recruiters to almost 6,500, which should have enabled it to meet its goal for 2006 if the recruiting environment did not deteriorate. Indeed, through August 2006, it had recruited 73,000 soldiers, or 88 percent of its annual goal. However, to meet that goal, the quality of the recruits (defined in terms of the percentage who were high school graduates and the percentage scoring above the median on a qualification test) declined substantially, potentially posing difficulties for retention and performance in the future.

In addition to recruiting problems, continuation rates in the active Army in 2004 and 2005 were at historical lows. In response to concerns about retention, in 2005 the Army began allowing individuals to reenlist up to two years early (increasing reenlistments temporarily, for 2005 and 2006), and it increased its expenditures on reenlistment bonuses almost fourfold, to \$505 million. According to data from the Army, expenditures in 2006 may exceed \$650 million.

4. In the active military components, accessions typically are new recruits who undergo basic training and begin their military service (that is, they "ship" to initial training). A related concept is the number of contracts, or agreements between recruits and the military that they will do so (after they graduate from high school, for example). Such recruits enter the Delayed Entry Program and are not counted toward end strength. In the reserve components, accessions typically are individuals who have signed contracts to participate in the Selected Reserves; those individuals are counted toward end strength. In the Army Reserve, however, recruits with prior service are deemed accessions (and counted toward end strength), but those without prior service are not deemed accessions (and are not counted toward end strength) until they attend initial training.

Continuation rates convey the proportion of service members that remain in the military for a specific time period. CBO typically considers the 12-month continuation rate—that is, the proportion of service members from the beginning of a fiscal year who remain in the military through at least the end of the fiscal year. For its modeling, CBO considered the 12-month rate for service members at each experience level.

Under the assumption that the Army will attain its 2006 recruiting goal (the data are due to be released later this month), along with the assumption that the Army will maintain its continuation rates at the 2005 levels for the next several years, the Army's end strength would drop from about 492,700 soldiers in 2005 to 481,600 by 2010—implying that the 2005 continuation rates are insufficient to sustain the force.⁵ If the ratio of deployable to nondeployable troops remained at its current levels, the number of troops in deployable units would drop by between 6,800 and 7,400 soldiers. However, the Congress increased the Army's authorized end strength to 512,400 active soldiers for 2006 and granted the Secretary of Defense the discretion to increase it to as many as 532,400 soldiers for the period 2007 through 2009.⁶

For the Army to increase its force to about 500,000 in 2006 and to surpass its authorized end strength of 512,000 troops by 2008 and reach 524,000 personnel by 2010 would require sustained accession levels and continuation rates that have not been sustained for extended periods. But under that scenario, in 2010 the force would have 31,500 more personnel than it did in 2005 and between 19,500 and 21,100 more deployable troops. According to CBO's estimates, as a rule of thumb, each increase of 1,000 annual accessions (maintained over a five-year period) would accumulate to boost end strength by more than 3,000 additional personnel by the end of the fifth year.

Army National Guard

The Army National Guard missed its recruiting goal each year from 2003 to 2005 by at least 13 percent.⁷ In 2005, with a somewhat higher-than-average goal of 63,000 recruits, it had its largest shortfall—of almost 13,000

recruits, or 20 percent. Consequently, the component's end strength fell from over 350,000 troops in 2003 to 333,000 in 2005.

To partially compensate, the Army National Guard set a goal of 70,000 recruits in 2006, the highest level in this decade. By CBO's calculations, the Guard's increase in the number of full-time recruiters (from 3,915 at the end of 2004 to 4,955 by the end of 2005, or an average of 4,400 for those two years) alone would not have enabled it to meet the 2006 goal.⁸ However, more recruiters in combination with increases in other resources and incentives, increases in recruiters' productivity, or improvements in the recruiting environment could have permitted the National Guard to attain that goal. Through August 2006, the National Guard recruited 63,000 soldiers, or 90 percent of its annual goal.

If the Guard achieved its 2006 accession goal and maintained continuation rates at the 2005 levels, it would reach an end strength of over 346,000 personnel in 2006, CBO estimates—fewer than 4,000 personnel short of its authorized end strength of 350,000. In that scenario, accessions of 63,500 for 2007 would enable it to reach its authorized end strength of 350,000 that year. Accessions of 61,000 thereafter would maintain end strength at that level through 2010. By CBO's estimates, each increase of 1,000 in annual accessions would translate to a boost in end strength of almost 3,200 personnel. Under a different scenario, accessions of 70,000 for 2006 combined with a 0.9 percentage-point improvement over the 2005 continuation rates (which would be similar to those experienced in the first half of 2006) would allow the Guard to come within 1,000 personnel of its authorized end strength in 2006.

Army Reserve

For the Army Reserve, end strength dropped from 204,000 troops in 2004 to 189,000 in 2005, or 16,000 below its authorized level. End strength fell as recruiting difficulties materialized and continuation rates declined. Despite having set the lowest recruiting goal of the decade—28,485 accessions—the Reserve fell short by nearly 5,000 individuals, or 16 percent. A DEP that the Reserve started in 2004 and a related change in how it

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5. The latest 12-month continuation rate through February 2006 shows an improvement; if that pattern continues, it may help ameliorate such a decline in end strength.
 6. By comparison, authorized end strength averaged 480,000 troops from 2000 through 2003. For more details on current authorized end strength, see the National Defense Authorization Act for Fiscal Year 2006 (Public Law 109-163, sections 401 and 403).
 7. Some components make a distinction between their accession mission and recruiting mission. In that case, the accession mission includes all gains—both individuals without prior service and those with prior service—and the recruiting mission refers to enlistments by individuals without prior service. In this study, CBO uses the phrases interchangeably, referring to gaining personnel of both types.

-
8. According to CBO's calculations, the number of recruiters would need to be further increased to between 6,400 and 7,400 on average to meet that goal.

counts end strength account for another portion of the shortfall. Under those policy changes, about 3,500 recruits who had signed contracts but who did not have prior service were not deemed accessions and were not due to be counted toward end strength until they attended initial training.⁹

In an effort to meet its goals for end strength, the Army Reserve has increased its recruiting resources by shifting its full-time recruiting support personnel into direct recruiting and by increasing enlistment and reenlistment bonuses, among other initiatives. By CBO's calculations, the increase in the number of direct recruiters by year-end 2005 alone might not have been enough for the component to reach its goal of 36,000 recruits for 2006.¹⁰ Through August 2006, the Army Reserve recruited substantially more individuals, 31,300, than in did in 2005 but was still short (at 94 percent) of its year-to-date goal. And even if the Army Reserve was able to attain 36,000 recruits each year for the next several years, by CBO's projections the size of the force in 2010 would be about the same as it was in 2005 (if continuation rates were held at their 2005 levels). To attain an end strength of 200,000 by 2010 (as outlined in DoD's Future Years Defense Program, or FYDP), the Army Reserve would need to recruit 40,000 individuals each year, which is above the average numbers attained early in the decade.¹¹ Each change of 1,000 in the number of annual accessions, CBO estimates, would accumulate to a change in end strength of 2,800 personnel by the end of five years.

Active Marine Corps

The active Marine Corps has met its recruiting and retention goals, and it has slightly exceeded its authorized levels of end strength every year this decade, even as those levels increased from 172,500 troops in 2000 to 178,000 in 2005. However, the recruiting environment in 2005 showed some contradictory signs. On the one hand, to meet its recruiting goal, the Marine Corps allowed its

DEP pool at the end of 2005 to drop to 43 percent of its original 2006 goal for accessions, marking the first time in at least 10 years that that figure dropped below its target of 50 percent.¹² On the other hand, in 2005, the Marine Corps was able to keep the number of recruiters stable, while its expenditures for enlistment bonuses were at their lowest levels this decade.

The Marine Corps began the year with a goal of 32,880 recruits for 2006, a level just 200 above the average for 2000 through 2004. Having recruited 101 percent of its cumulative goal through August, the Marine Corps was on pace to meet its 2006 goal. If, for the next several years, the Corps could recruit at about that level while maintaining continuation rates at the 2005 levels (which were about 1 percentage point higher than the rates that existed before September 11, 2001), end strength would grow to 184,000 by 2010. That figure corresponds to the increased level that the Congress authorized, at the discretion of the Secretary of Defense, in the 2006 National Defense Authorization Act for the period spanning 2007 through 2009. If, instead, the Marine Corps recruited 31,700 soldiers annually, end strength would remain stable over the period at 180,000 Marines, the 2006 authorized level.

Marine Corps Reserve

The Marine Corps Reserve—the smallest component, with an end strength of 40,000 personnel in 2005—met its recruiting and retention goals for each year from 2000 through 2005. In that time span, the size of the force varied only slightly, from 39,600 to 41,100 (while authorized end strength was stipulated at about 39,600 for each of those years).

Continuation rates have increased substantially over this decade; to compensate, the Reserve dropped annual accession levels in recent years to about 8,000 recruits. (Despite lower accession goals, expenditures for enlistment bonuses are considerably higher than they were early in the decade.) If the Marine Corps Reserve maintained its continuation rates from 2005 and attained its 2006 recruiting goal (which was the lowest that it has been this decade), end strength would be 41,100 by 2010. That level corresponds closely to the one outlined in DoD's 2007 FYDP. If, however, the number of recruits

9. However, the operational strength of the Army Reserve (the trained-and-ready force) is unaffected by the institution of the DEP.

10. The number of fully productive recruiters would need to increase from the 2005 average of about 1,500 to between 2,300 and 2,500, according to CBO's calculations.

11. The average accession level for 2000 through 2004 was 41,300, but if accessions were defined as they currently are, the average for that period would have been roughly 35,300.

12. Despite the drop, the Marine Corps's DEP level for 2005 was higher than what the other active components typically maintain.

fell short of the 2006 goal by 500 each year, the size of the force would total about 39,400 personnel in 2010.

Active Navy

The Navy—both active and reserve components—is in the midst of a reduction in force. Authorized end-strength levels for the active Navy dropped from 372,000 personnel in 2000 to 352,700 in 2006. Further reductions to 331,300 by 2010 (as outlined in the FYDP) are planned. Consequently, the Navy has reduced its recruiting and retention goals considerably. At the beginning of the decade, the number of accessions was 55,100; in 2005, it was 37,700. Although some shortfalls for particular occupational specialties may have existed, the Navy does not appear to have had broad difficulties recruiting. It was able to meet its goals while decreasing the number of active-force recruiters and lowering the expenditures on enlistment bonuses. As of August 2006, the Navy looked as if it would meet its annual goal of 36,000 recruits.

The active Navy is facing the challenge of retaining the skilled personnel it needs while encouraging others to leave voluntarily. In 2005, the Navy did not meet its (lowered) retention goal. Presumably in response to that difficulty, the Navy increased its expenditures on Selective Recruitment Bonuses (SRBs) during the year. It also has crafted programs such as “Perform to Serve,” in which sailors are screened at their reenlistment point for their eligibility to reenlist. In that program, the Navy offers some sailors in overmanned occupations who might otherwise be separated a chance to retrain and reenlist in undermanned occupations.

By CBO’s estimates, if the Navy recruited 37,500 sailors (the 2006 goal) each year and maintained continuation rates at the 2005 levels (which were similar to the pre-September 11, 2001, levels), the Navy would reduce its end strength to 333,800 sailors by 2010—a number slightly higher than planned. A 1 percentage-point decline in continuation rates from their overall 2005 level of 86.2 percent (yielding a level similar to that in 2000) would reduce the force by 12,000 more sailors, to 321,700, by 2010. A force of that size would be almost 10,000 below the goal.

Navy Reserve

The Navy Reserve plans to cut its end strength from 76,500 personnel in 2005 to 68,100 by 2010. (The level had already dropped by about 6,000 personnel in 2004 and again by about that amount in 2005.) Although the Navy Reserve successfully achieved a declining goal for accessions from 2001 to 2004, it fell short of its goal by 1,700 in 2005, when it had only 9,800 recruits. Despite spending more on reenlistment bonuses in 2005, the continuation rates in that year followed a declining trend that had begun three years previously. For 2006, the Navy Reserve planned to recruit 11,200 sailors, an increase of 1,400 over the actual number in 2005.¹³ With 8,800 recruits through August 2006, or 86 percent of its cumulative goal, the service may not have attained its annual goal.

The Navy Reserve has embarked on several new initiatives in its attempt to reverse its decline in accessions. Those initiatives include increases in recruiting resources and tapping new segments of the recruiting market. In addition, the Navy Reserve anticipates that about 1,700 individuals who participate in the active Navy through the National Call to Service (NCS) will transfer to the Reserve in 2007 and that similar or larger numbers will do so thereafter.¹⁴ Those sailors represent an additional boost to the Navy Reserve if they would not have served in the Reserve in the absence of the program. If, however, some of them would have joined the Reserve without the program, accession goals above the 2006 level might be difficult to attain without additional resources.¹⁵

13. The reserve components typically fill their requirements for Active Guard/Reserve (AGR) personnel, also termed full-time support (FTS) personnel, with existing reserve personnel. However, the Navy Reserve also maintains separate accession goals for those personnel. To match DoD’s reporting elsewhere, CBO reports only the accessions and goals for drilling reservists (those who train on weekends) and not those for AGR or FTS personnel.

14. In the 2003 National Defense Authorization Act, the Congress authorized the National Call to Service initiative. Participants agree to serve a shortened enlistment of 15 months of active duty following their initial training. After that period, they are required to complete their obligation either in the active or reserve components or in a designated national service program, as specified in the agreement.

15. Again, accessions include all permanent gains to strength (both individuals without prior service and those with prior service). Individuals who transfer under the NCS program would count as accessions under this definition.

According to CBO's estimates, even if the Navy attained its 2006 accession goal and maintained the continuation rates that existed in 2005, the Reserve's end strength would fall below planned levels, to 65,900 personnel, by 2010—a shortfall of 3 percent. If the Navy Reserve recruited at the 2005 level—almost 9,800 sailors—each year over the next five, end strength would fall to 62,300 by 2010, a shortfall of 9 percent. To reach the planned end-strength levels outlined in the FYDP, the Navy Reserve would require accessions of 8,750 for 2006, rising to 13,000 by 2010, while maintaining continuation rates at the 2005 levels. If the Reserve's NCS program succeeds in tapping a new segment of the recruiting market and if enhanced bonuses are effective, the Navy Reserve may be able to achieve those accession and end-strength targets.

Active Air Force

The active and reserve components of the Air Force are also undergoing reductions. The Air Force's end strength exceeded authorized levels from 2002 to 2004. Accordingly, accessions were reduced; for instance, between 2004 and 2005, they were almost halved, to only 19,000 recruits. After decreasing from 376,600 personnel in 2004 to 353,700 in 2005, or by 6 percent, to meet its authorized level of end strength, the active Air Force will further reduce its end strength to 316,500 by 2011, or by about 10.5 percent cumulatively. The accession goal for 2006 (about 31,000 recruits), while larger than the previous year's, was lower than the average annual accession level for the decade; as of August 2006, the Air Force was on track to meet that goal. Reductions in recruiting resources like advertising and enlistment bonuses have accompanied the lower accession and end-strength levels. Continuation rates, too, have fallen during the past few years, possibly to reduce end strength to authorized levels.

According to CBO's projections, if, in conjunction with its 2006 accession goal, the active Air Force maintained its continuation rates at the 2005 levels (which were among the lowest in the past 15 years), by 2010 its end strength would fall 11,300 below the level outlined in the FYDP, to 308,900 personnel. The Air Force could attain its planned end strength by that year by recruiting up to 32,500 new personnel annually combined with achieving substantially higher continuation rates for 2006 (similar to those for 2004) and continuation rates 1 percentage point higher than those, for 2007 and beyond (similar to those before September 11, 2001).

Air National Guard and Air Force Reserve

The Air National Guard plans to reduce its end strength by about 11 percent between 2005 and 2010 (from 106,400 to 94,200 personnel), while the Air Force Reserve plans to reduce its force size by about 9 percent during the same period (from 75,800 to 68,700). The reserve components have generally met their recruiting goals. The Air Force Reserve met its goals every year but 2000. However, the Air National Guard fell short in 2001, 2004, and 2005. As of August 2006, the Reserve was meeting its year-to-date goal, but the Guard was at 94 percent of its goal. After being interrupted by somewhat sharp drops in 2003, continuation rates in 2005 for the two components nearly returned to their levels before September 11, 2001. By CBO's projections, if the Air National Guard attained its 2006 accession goal (which was low by historical standards) and maintained its continuation rates at the 2005 levels through 2010, its end strength would exceed the planned level by about 9,000 in 2010. However, if the Air Force Reserve did the same, its end strength would fall to the levels outlined in its plan.

Recruiting, Retention, and End Strength in the Army

The U.S. Army consists of three components: the active Army, the Army National Guard, and the Army Reserve. The components are often discussed together because the Army has drawn from all three to provide ground forces during the ongoing conflicts in Iraq and Afghanistan. In addition, the Army's Modularity Initiative, as recently reinforced by the Quadrennial Defense Review (QDR), attempts to rebalance the numbers of combat brigades and the end-strength levels among the three components.

The integration of the three Army components reflects the Abrams Doctrine. After the Vietnam War, General Creighton W. Abrams, then-Chief of Staff of the Army, advocated placing key wartime support functions in the guard and reserve components of the military. Under that doctrine, it is difficult for the Army to engage in large-scale military conflicts without mobilizing guard and reserve personnel.¹

The active Army contains combat divisions and regiments, and the National Guard contains both combat divisions and separate combat brigades. All 15 of the National Guard's separate brigades have been mobilized since 2003 (supplementing active Army troops): 11 to Iraq, three to Afghanistan, and one (218th Infantry Brigade, South Carolina Army National Guard) to Bosnia.²

In a July 9, 2003, memorandum, Secretary of Defense Donald H. Rumsfeld stated that the Department of Defense (DoD) should "limit involuntary mobilization to reasonable and sustainable rates, using not more than one year in every six as the planning metric."³ If DoD adheres to that pronouncement, deploying the separate brigades again in the near term will be difficult because the six-year period will not have elapsed for some of the more senior personnel in those units.

Logistics support for combat forces is provided by a portion of the Army's force structure known as Combat Service Support (CSS). About one-third of the Army's CSS personnel are located in the Army Reserve, and another one-third are located in the Army National Guard.⁴ The Army Reserve does not contain any combat units, but many of its logistics units have been deployed to Iraq or Afghanistan in a supporting role. As of May 2005, a total of about 45,000 Army CSS soldiers, from all three components, were deployed to the Iraq theater (including Kuwait).⁵

1. For more on the Abrams doctrine and the current use of the Army Reserve, see John R. Groves, *Crossroads in U.S. Military Capability: The 21st Century U.S. Army and the Abrams Doctrine*, Land Warfare Paper No. 37 (Arlington, Va.: Association of the United States Army, Institute of Land Warfare, August 2001); and Gary C. Howard, *Reinventing the Army Reserve Again*, Landpower Essay No. 04-4 (Arlington, Va.: Association of the United States Army, Institute of Land Warfare, November 2004).

2. The Army National Guard also has the mission of providing disaster relief and other services at the request of state authorities.

3. Memorandum from Donald H. Rumsfeld, Secretary of Defense, to the Secretaries of the Military Departments, Chairman of the Joint Chiefs of Staff, and Under Secretaries of Defense, "Rebalancing Forces," July 9, 2003, as quoted in Office of the Deputy Assistant Secretary of Defense for Reserve Affairs (Readiness, Training, and Mobilization), *Rebalancing Forces: Easing the Stress on the Guard and Reserve* (January 15, 2004), available at www.defenselink.mil/ra/documents/rebalancingforcesfinalfinald1.pdf.

4. See Congressional Budget Office, *Logistics Support for Deployed Military Forces* (October 2005), Table 1-4, p. 17.

5. Ibid., Table 1-2, p. 5. In addition to CSS units, combat support units (providing other support such as combat engineering) in the reserves have also been deployed.

Table 1-1.**The Army's End Strength**

Fiscal Year	Active Army				Army National Guard			
	Authorized	Actual			Authorized	Actual		
		Enlisted Personnel	Officers	Total ^a		Enlisted Personnel	Officers	Total
2000	480,000	401,414	76,667	482,170	350,000	315,645	37,400	353,045
2001	480,000	400,461	76,179	480,801	350,526	315,250	36,579	351,829
2002	480,000	404,304	78,158	486,542	350,000	314,629	36,449	351,078
2003	480,000	414,769	80,325	499,301	350,000	314,246	36,843	351,089
2004	482,400	414,438	80,968	499,543	350,000	306,234	36,684	342,918
2005	502,400	406,923	81,656	492,728	350,000	296,623	36,554	333,177
2006	512,400	n.a.	n.a.	n.a.	350,000	n.a.	n.a.	n.a.

Source: Congressional Budget Office based on, for the active Army, the National Defense Authorization Act (various years) and Department of Defense, Directorate for Information Operations and Reports, Statistical Information Analysis Division, "Military Personnel Statistics," available at <http://siadapp.dior.whs.mil/personnel/MILITARY/Miltop.htm>; and, for the reserve components, the National Defense Authorization Act (various years) and Department of Defense, Defense Manpower Data Center, *Official Guard and Reserve Manpower Strengths and Statistics* (various years).

Note: n.a. = not available.

a. The active Army's total end strength includes about 4,000 cadets not otherwise classified.

The Chief of Staff of the Army, General Peter Schoomaker, announced the Army's Modularity Initiative in January 2004. As initially conceived, the active Army's 33 maneuver brigades would be restructured into between 43 and 48 brigade combat teams. The active Army's end strength would be temporarily increased by 30,000 troops to fill the added brigades.⁶ The Army National Guard's divisional and separate brigades would be converted into 34 brigade combat teams.⁷ As of March 2006, however, the Army's plans had changed to include 42 brigade combat teams in the active component and 28 in the National Guard.⁸

To facilitate the Army's transformation to a modular brigade structure and to support operational missions, the Congress authorized several increases in the active Army's

end strength. Starting from a level of 480,000 in 2003, the Congress raised the Army's end-strength goal to 482,400 in 2004, 502,400 in 2005, and 512,400 in 2006 (see Table 1-1). The 2005 National Defense Authorization Act (NDAA) also granted the Secretary of Defense the discretion to increase end strength as high as 512,400 for the period spanning 2005 through 2009. The 2005 NDAA stipulated that DoD's 2005 budget would contain only enough funding for military personnel to pay 482,400 active soldiers. Any additional end strength up to a total of 512,400 soldiers would have to be funded through supplemental appropriations. If the Secretary of Defense chose to exercise his discretion to increase end strength above 482,400 active soldiers in 2006, DoD's budget submission would have to specify the estimated funding that would come from regular appropriations, as well as the estimated amounts paid from emergency reserve funds or supplemental appropriations.⁹

The 2006 NDAA increased the authorization to 512,400 active soldiers and expanded the Secretary of Defense's discretion, allowing end-strength levels as high as 532,400 through 2009. End strength above 482,400

6. Gary Sheftick, "Army to Reset into Modular Brigade-Centric Force," Army News Service, February 24, 2004, available at www.globalsecurity.org/military/library/news/2004/02/mil-040224-usa01.htm.

7. Jim Garamone, "Army to Restructure, Will Grow by 30,000," Armed Forces Press Service, January 29, 2004, available at www.globalsecurity.org/military/library/news/2004/01/mil-040129-afps04.htm.

8. See Congressional Budget Office, *The Army's Future Combat System and Alternatives* (August 2006), Table 2-1, p. 18.

9. See the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (Public Law 108-375, sections 401 and 403; 118 Stat. 1863).

Army Reserve			
Authorized	Actual		
	Enlisted Personnel	Officers	Total
205,000	165,053	41,839	206,892
205,300	164,760	40,868	205,628
205,000	166,258	40,424	206,682
205,000	171,593	40,297	211,890
205,000	165,781	38,350	204,131
205,000	152,070	36,935	189,005
205,000	n.a.	n.a.	n.a.

during 2006 would have to be funded through supplemental appropriations. For 2007 through 2009, funding for the entire force of up to 532,400 active soldiers would have to be included in the annual budget submission.¹⁰ However, the Army's 2007 budget justification document explicitly states: "Like the FY 2006 budget the 2007 estimate (excluding contingency operations) is based on a 482,400 man-years program for FY 2007. The permanent minimum level end-strength is 502,400. Funding for end strength above the baseline level of 482,400 will be requested through FY 2007 Supplemental Appropriations."¹¹

The Quadrennial Defense Review offers limited additional guidance on the Army's end strength. It expresses the goal to "Stabilize the Army's end strength at 482,400 Active and 533,000 reserve component personnel by Fiscal Year 2011."¹² The QDR does not provide subtotals for the Army National Guard and the Army Reserve,

which constitute the Army's reserve component. However, DoD's 2007 Future Years Defense Program (FYDP)—which presents the department's plan for 2007 through 2011, was released after the QDR report was published and reflects the QDR's priorities—does provide such subtotals. The 2007 FYDP separates the Army's 533,000 reserve component personnel into 333,000 members of the Army National Guard and 200,000 members of the Army Reserve. Those levels are smaller than the levels of end strength authorized for recent years: 350,000 for the Army National Guard and 205,000 for the Army Reserve. In particular, the decline of 17,000 for the Army National Guard has been questioned by the Congress. On February 2, 2006, a bipartisan group of 75 Senators sent a letter to Secretary Rumsfeld to register their concern with that decline. In response to the Senators' letter, General Schoomaker has pledged to support a National Guard of 350,000 personnel if recruiting is adequate to allow the force to grow to that level.¹³

Whether the Army components will be able to increase their forces to authorized end-strength levels is an open question. Realized end strength for the active Army over this decade grew from 482,200 in 2000 to a peak of 499,500 in 2004 and then dropped to 492,700 in 2005 (see Table 1-1). The drop occurred in part because of the recruiting difficulties that the Army was experiencing. Similarly, the Army National Guard's and the Army Reserve's end strength dropped in 2005, falling below authorized levels by about 17,000 personnel (5 percent) and 16,000 personnel (8 percent), respectively. Recruiting shortfalls in both components contributed to the declines. In addition, the Army Reserve began implementing a Delayed Entry Program (DEP) in 2004 that also affected its accounting for end strength. Under that program, about 3,500 recruits who had signed contracts but who did not have prior service were not deemed accessions and were not counted toward end strength until they attended initial training. Under the previous practice, those 3,500 recruits would have immediately counted toward end strength. However, the operational strength of the Army Reserve (the trained-and-ready force) is unaffected by the institution of the DEP. Also, even with the decreases in end strength, the Army's shift toward a modular brigade structure continued in 2005.

10. See the National Defense Authorization Act for Fiscal Year 2006 (Public Law 109-163, sections 401 and 403; 119 Stat. 3218).

11. Department of Defense, Department of the Army, *Active Forces*, vol. I of *Fiscal Year 2007 Budget Estimates: Military Personnel*, *Army Justification Book* (February 2006), p. 2-1.

12. Department of Defense, *Quadrennial Defense Review Report* (February 6, 2006), p. 43.

13. Ann Scott Tyson, "Army Pledges No Cutbacks in National Guard: Recruiting Shortfalls Led to Proposed Reduction," *Washington Post*, February 3, 2006, p. A-8.

Although the Army's end strength rose in 2006, the components were not able to reach authorized levels. The active Army's end strength as of July 31, 2006, was 499,400, or 3.5 percent below the now higher 2006 authorized level of 512,400. The Army National Guard's and Army Reserve's strength equaled, respectively, 341,700 (2.4 percent below the authorized level) and 190,400 (7.1 percent below the authorized level).

Recruiting Trends

All three Army components—the active Army, the Army National Guard, and the Army Reserve—fell short of their recruiting goals in 2005. That year, they were all also shy of DoD's benchmark specifying that 90 percent of recruits hold a high school diploma. By another measure—the portion of recruits scoring above the median on a qualification test—the active Army and the Army Reserve were above DoD's standard of 60 percent, but the Guard was not. By August 2006, all three components had recruited almost as many or more individuals as they had for 2005. Both the active Army and the Army National Guard were on pace to meet their goals, although the Army Reserve was short of its cumulative goal. However, the extent to which active Army recruits' qualifications were meeting DoD's standards had fallen. Although the reserve components had shown improvements, they were still short of some of those standards.

Quantity of Recruits

The Army has several mechanisms available to help achieve its end-strength goals. One strategy is to boost accessions, by, for instance, increasing the number of recruiters, raising enlistment bonuses, or easing enlistment restrictions.¹⁴

14. The components have increased the pool of potential enlistees in recent years by changing eligibility requirements. For example, in January 2006, the active Army raised the maximum age for enlisting from 35 to 40. The reserves had already raised the age ceiling from 35 to 40 the previous year. In June 2006, both again raised the age limitation to 42. In another example, as of February 2006, the Army began accepting individuals with visible tattoos (although certain restrictions apply). The Army has also increased the number of recruits it accepts through its special exemptions program, which provides waivers. Recruits who would otherwise not be permitted to join the military (for example, individuals having certain medical conditions, misdemeanor convictions, or other disqualifying incidents) may petition DoD for special consideration. The active Army granted waivers to about 11,000 recruits in 2005, compared with 9,300 the previous year.

The active Army's accession goal in 2003 was 73,800 enlisted personnel (see Table 1-2). The Army began 2004 with an accession goal of 72,500 but later in that year increased it to 77,000. Exceeding the latter goal by nearly 1 percent, the Army recruited 77,586 soldiers that year. However, the Army surpassed its goal in part by drawing from its DEP. The Army normally prefers to have about one-third of the coming year's accession goal "banked" in the DEP to improve the likelihood of meeting the accession goal as well as to balance its training requirements.¹⁵ However, the Army drew down its DEP pool to about 14,750 individuals, or 18.5 percent of its recruiting goal set at the beginning of 2005.¹⁶

The active Army set an accession goal of 80,000 for 2005. Although that goal was higher than the ones of previous years, that level of accessions is not without precedent in recent history. The Army recruited almost that many soldiers as recently as 2002 and slightly more than 80,000 soldiers in 2000. Those precedents notwithstanding, the Army was able to recruit only 73,373 soldiers (92 percent of its goal) in 2005. Moreover, by the end of 2005, the Army had depleted its DEP pool to 12.4 percent of its initial accession goal for 2006, or fewer than 10,000 individuals, which is about the number of recruits who were expected to start initial training in a single month during the summer of 2006. By the Congressional Budget Office's (CBO's) estimates, if the Army had held the size of its DEP constant, it would have achieved just 68,600 accessions in 2005.

Both the Army National Guard and the Army Reserve have faced challenges meeting their recruiting goals in recent years. The National Guard exceeded its recruiting goals in 2000 through 2002, averaging about 62,000 soldiers each year but did not do so from 2003 to 2005 (see Table 1-2). In 2003, it recruited only 54,202 soldiers, compared with a recruiting target of 62,000, attaining just 87 percent of its goal. In 2004, despite a lower goal of 56,002 recruits, the Guard was able to sign up just

15. The Army has not typically maintained year-end DEP levels of over 30 percent since the mid-1990s. For year-end 1998 through 2001, the DEP pool ranged from 19 percent to 25 percent of the beginning goal for the next year. Only for 2002 and 2003 was the figure over 40 percent.

16. See Lawrence Kapp, *Recruiting and Retention: An Overview of FY 2004 and FY 2005 Results for Active and Reserve Component Enlisted Personnel*, CRS Report for Congress RL32965 (Congressional Research Service, June 30, 2005).

Table 1-2.**The Army's Total Accessions of Enlisted Personnel**

Fiscal Year	Active Army				Army National Guard			Army Reserve		
	Initial Objective	Final Objective	Actual Accessions	Percentage of Objective	Objective	Actual Accessions	Percentage of Objective	Objective	Actual Accessions	Percentage of Objective
2000	80,000	80,000	80,113	100	54,034	61,260	113	48,461	48,596	100
2001	78,950	75,800	75,855	100	60,252	61,956	103	41,191	42,097	102
2002	76,800	79,500	79,585	100	60,504	63,251	105	38,251	41,385	108
2003	73,389	73,800	74,132	100	62,000	54,202	87	40,900	41,851	102
2004	72,500	77,000	77,586	101	56,002	48,793	87	32,275	32,710	101
2005	80,000	80,000	73,373	92	63,002	50,219	80	28,485	23,859	84
2006	80,000	n.a.	n.a.	n.a.	70,000	n.a.	n.a.	36,032	n.a.	n.a.
Average, 2000–2004	76,328	77,220	77,454	n.a.	58,558	57,892	n.a.	40,216	41,328	n.a.

Source: Congressional Budget Office based on, for the active Army, data from the Department of Defense, Directorate for Accession Policy; and, for the reserve components, data from the Department of Defense, Office of Reserve Affairs and Office of the Chief, Army Reserve.

Note: n.a. = not available or not applicable.

48,793 individuals, or 87 percent of its goal. In 2005, it set a goal of 63,002 and recruited 50,219 individuals, or 80 percent of its goal. From 2003 through 2005, the Guard had an average goal of more than 60,000 recruits (a level higher than that earlier in the decade), yet it averaged about 51,000 recruits (a level 18 percent lower than that experienced earlier in the decade).

The Army Reserve set an accession goal of 40,900 recruits in 2003 (which was similar to the numbers in the previous two years), and it surpassed that goal by 2 percent. The following year, it lowered its goal to 32,275 soldiers, partly to reduce end strength, as actual end strength was higher than authorized end strength by almost 7,000 in 2003. The Army Reserve then exceeded its reduced recruiting goal by 1 percent in 2004. Although end strength dropped to the authorized level, the Army Reserve decreased its recruiting goal further for 2005, to 28,485 soldiers. The lower recruiting goals in 2004 and 2005 may also be attributed, in part, to the change in the Army Reserve's definition of an accession. With the institution of the Army Reserve's DEP in 2004, recruits without prior service are not counted as accessions into the Selected Reserves until they begin initial training. (If prior years' accessions were counted in the same way as they are currently, the Army Reserve would have had roughly 6,000 fewer recruits each year between 2000 and 2003.) In 2005, the component was not able to meet its

goal, recruiting a total of 23,859 soldiers, or 84 percent of the goal.

All of the Army components had higher-than-average accession goals for 2006. The active Army again set a goal of 80,000 for 2006. From October 2005 through August 2006, it met its monthly goals and to that point had recruited 72,973 individuals, compared with its goal of 70,200. Thus, the Army had achieved 104 percent of the cumulative goal (whereas as of the same time last year, August 2005, the figure was 90 percent).

The Army National Guard increased its accession goal to 70,000 recruits for 2006, a level that it has not attained this decade. Through August, it had recruited 63,025 soldiers, or 100 percent of its year-to-date goal. By that time last year, it had recruited just 44,171 soldiers, or 78 percent of its year-to-date goal.

The Army Reserve increased its recruiting goal by over 7,500, to 36,032 soldiers for 2006; that level is roughly equivalent to a goal of 42,000 as it would have been tallied in previous years, before the change to the DEP. For the first 11 months of fiscal year 2006, the Army Reserve had recruited 31,301 individuals (94 percent of its year-to-date goal). By contrast, for the same time period in 2005, the Army Reserve had recruited 21,651 individuals, or 82 percent of its cumulative goal.

Table 1-3.**The Quality of the Army's Recruits Without Prior Service**

(Percent)

Fiscal Year	Active Army		Army National Guard		Army Reserve	
	High School Graduate ^a	AFQT Categories I-III A	High School Graduate	AFQT Categories I-III A	High School Graduate	AFQT Categories I-III A
2000	91	65	87	61	88	63
2001	91	65	86	60	90	66
2002	91	70	86	60	92	69
2003	92	73	84	60	93	68
2004	92	72	84	57	91	70
2005	87	67	83	57	88	67

Source: Congressional Budget Office based on, for the active Army, data from the Department of Defense, Directorate for Accession Policy (partly available at www.dod.mil/prhome/docs/recqual04.pdf); and, for the reserve components, data from the Department of Defense, Office of Reserve Affairs.

Notes: AFQT = Armed Forces Qualification Test.

The Department of Defense divides the scores on the AFQT into five ranges, or categories. Scores at or above the 50th percentile fall into categories I through IIIA.

- a. Figures exclude up to 4,000 participants in the GED+ (General Educational Development Plus) pilot program for 2000 to 2004 and about 2,100 participants in the Tier Two Attrition Study (a pilot program in which some individuals without high school diplomas are recruited) for 2005.

Quality of Recruits

End strength and the ability of the force to meet its missions are also influenced by new recruits' capabilities. Recruits who are better educated or who score higher on aptitude tests are more likely to complete their initial training and stay in the Army. They also perform better in the military.¹⁷ DoD has to compete for young people with those characteristics because many such youth are inclined to pursue higher education or to seek jobs in the private sector.

DoD sets two major goals for the quality of its recruits. First, at least 90 percent of the recruits without prior service should be high school graduates. Second, at least 60 percent of recruits without prior service should score at or above the 50th percentile (relative to the general population) on the Armed Forces Qualification Test (AFQT).

17. See David J. Armor and Paul R. Sackett, "Manpower Quality in the All-Volunteer Force," in Barbara A. Bicksler, Curtis L. Gilroy, and John T. Warner, eds., *The All-Volunteer Force: Thirty Years of Service* (Dulles, Va.: Brassey's Inc., 2004), pp. 90-108; and Jennifer Kavanagh, *Determinants of Productivity for Military Personnel: A Review of the Findings on the Contributions of Experience, Training, and Aptitude on Military Performance*, TR-193-OSD (Arlington, Va.: RAND, 2005).

The ability of the service branches to meet those quality goals depends on labor-market conditions as well as the adequacy and effectiveness of recruiting resources.

During 2005, 87 percent of the Army's non-prior-service recruits were high school graduates (see Table 1-3).¹⁸ Among the four active service branches, from 2000 to 2005, only the Army missed the stated goal, in 2005. The percentage of Army recruits with AFQT scores at or above the median—in AFQT categories I through IIIA—increased from 65 percent in 2000 to 73 percent in 2003. That metric was stable at 72 percent in 2004 but declined to 67 percent in 2005.

Even though the Army was meeting its quantity goals for 2006, the quality of those recruits declined. Through August 2006, high school graduates and recruits in AFQT categories I through IIIA made up 82 percent and 61 percent, respectively, of the recruits without prior ser-

18. Following the Army's convention, that calculation for 2005 excludes approximately 2,100 participants in the Tier Two Attrition Study, a pilot program in which selected individuals without high school diplomas (such as some individuals earning GED (general educational development) certificates or home-schooled students) are recruited.

vice. A year earlier, through August 2005, the quality of non-prior-service recruits was higher: about 89 percent were high school graduates while 69 percent were in AFQT categories I through IIIA.¹⁹ Additionally, the proportion of recruits with low AFQT scores (between the 10th and 30th percentiles) for the first 11 months of 2006 increased to 3.9 percent (from 3.1 percent for the comparable period last year). Those changes may raise concern about the Army's retention in the future.

The Army National Guard and Army Reserve have also experienced declines in the quality of their recruits. In 2000, the Guard missed the goal for 90 percent of non-prior-service recruits to have high school diplomas and experienced a downward trend through 2005. The portion of recruits with high school diplomas declined from 87 percent in 2000 to a low of 83 percent in 2005. The portion of recruits with AFQT scores at or above the median also slipped, from 61 percent in 2000 to 57 percent in both 2004 and 2005. Through August 2006, the percentage of recruits with high school degrees (89 percent) increased substantially over the figure a year earlier, through August 2005, while the portion with AFQT scores at or above the median (58 percent) improved slightly.

The Army Reserve experienced increases in the quality of its recruits early in the decade followed by a more recent decline. The share of non-prior-service recruits with high school diplomas increased from 88 percent in 2000 to a high of 93 percent in 2003 and afterward dropped back to the 2000 level. Recruits in AFQT categories I through IIIA increased from 63 percent at the beginning of the decade to 70 percent in 2004; in 2005, that group constituted 67 percent of accessions. Through August 2006, new recruits with high school diplomas made up 90 percent of accessions, compared with 87 percent at the same time last year, while those with AFQT scores above the median constituted 59 percent versus 67 percent at the same time last year. Additionally, through August 2006, the Army Reserve was recruiting relatively more individuals with low AFQT scores (between the 10th and 30th percentiles) than it had through August of the previous year.

19. Those numbers have deteriorated since midyear. Typically, the percentages improve through the year as students who have completed high school are disproportionately recruited through the remainder of the year.

Recruiting Resources

CBO examined three of the most important resources available to the Army to influence accession levels—enlistment bonuses, the number of recruiters, and advertising expenditures. Enlistment bonuses, paid in a lump sum or in installments, provide incentives for new recruits to join the military. The service branches may offer greater incentives when they require larger numbers of recruits to build a growing force or when they encounter an unusual degree of competition with the private sector. They also offer enlistment bonuses to some recruits even when they are not facing general difficulties in recruiting—to encourage recruits to join selected occupations with manning shortfalls and to smooth the flow of recruits into initial training.

The active Army has increased its incentives to join by instituting, in January 2005, an enlistment bonus of up to \$10,000 for recruits with prior service. Also in 2005, the Army expanded its bonus eligibility for non-prior-service recruits. For example, the Army began offering those recruits with college credits additional cash enlistment incentives (the “HiGrad” program). Previously, only high-quality non-prior-service recruits in certain occupations were eligible for bonuses. In addition, the maximum enlistment bonus amount was increased from \$20,000 to \$40,000 for selected occupations in 2006. Other enlistment incentives besides bonuses have also been strengthened. For example, in 2005, the maximum payout from the Army College Fund was increased from \$50,000 to \$70,000, and the maximum benefit in the Student Loan Repayment Program was increased to \$65,000 for personnel in selected occupations.²⁰

Between 2000 and 2005, the active Army spent between \$95 million and \$201 million annually on enlistment bonuses (see Table 1-4). Although the expenditures of \$166 million in 2005 represented a decrease from the

20. The Army College Fund (ACF) is an educational benefit that provides funds for higher education to qualified non-prior-service recruits who enroll in the program at the time of enlistment. The ACF supplements the Montgomery GI Bill (MGIB) and must be used in conjunction with it. Under MGIB, an eligible member receives monthly educational assistance for 36 months. The ACF supplements the basic MGIB benefit, and the combined benefit, paid monthly for 36 months, cannot exceed the maximum ACF amount. Further information on the program is available at www.hrc.army.mil/site/education/acf.html. Under the Student Loan Repayment Program, the military will repay a portion of eligible college loans for non-prior-service enlistees.

Table 1-4.**The Army's Spending on Reenlistment and Enlistment Bonuses**

(Millions of current dollars)

Fiscal Year	Active Army		Army National Guard		Army Reserve	
	Selective Reenlistment Bonuses ^a	Enlistment Bonuses	Selective Reenlistment Incentive Program	Enlistment Bonuses	Selective Reenlistment Incentive Program	Enlistment Bonuses
2000	105.4	94.9	23.8	20.8	5.5	18.7
2001	112.6	166.2	27.9	60.4	7.8	27.2
2002	127.8	200.7	25.0	81.5	9.9	28.9
2003	102.6	150.3	25.1	63.0	11.9	41.9
2004	142.9	188.1	27.2	77.6	2.7	35.6
2005	505.6	165.9	235.1	138.6	56.9	61.0

Source: Congressional Budget Office based on, for the active Army, data from the Department of Defense, Directorate for Accession Policy and Directorate for Officer and Enlisted Personnel Management; and, for the reserve components, data from the Department of Defense's personnel budget books, available at www.dod.mil/comptroller/defbudget/fy2007/index.html.

a. Selective reenlistment bonuses for the active Army include Critical Skills Retention Bonuses, which were also authorized for the reserve forces in the 2006 National Defense Authorization Act.

previous year, \$238 million and \$200 million are budgeted for 2006 and 2007, respectively.²¹ The higher amounts are necessary to fund the new enlistment bonus programs.²²

The number of active Army recruiters varied substantially between 2000 and 2005, more than the variation in recruiting goals might suggest; some of the difference presumably reflects changes in the recruiting climate (see Table 1-5). The active Army reduced its recruiting force from an average of about 6,400 recruiters during 2002 to an average of 5,100 during 2004, a decline of almost 21 percent (compared with the decline in initial accession goals of 5.6 percent). It then increased the number of recruiters from 5,200 at the beginning of 2005 to 6,500 by year's end (averaging just under 6,000 for the entire fiscal year). The number of recruiters averaged about 6,500 through the first 11 months of 2006. The additional recruiters should be or will shortly be fully productive. Research has shown that recruiters typically produce

few recruits in their first six months on the job; it is not until 18 months of recruiting duty that they reach the height of their productivity.²³ An Army-wide referral program newly instituted this year, in which service members who help sign up new recruits receive a \$1,000 bonus, could also boost recruiting.²⁴

The active Army has also devoted more funding for support resources—for such things as the use of rental cars by recruiters—and advertising (see Table 1-5). The cost of the support resources increased from \$182 million in 2003 to \$226 million in 2004 and \$258 million in 2005. Advertising expenditures totaled \$126 million in 2000 and grew to \$216 million in 2005, averaging a 12 percent annual rate of growth during that period. The greatest increase, of almost \$40 million, came in 2005, presumably to counter the difficulties that recruiters were having meeting their goals.

21. Budgeted levels do not reflect any spending on enlistment bonuses that may be funded from supplemental appropriations for the war in Iraq.

22. As is sometimes the case, it is possible that the figures for expenditures, including those for enlistment bonuses, will be revised upward after any adjustments occur as the spending accounts are finalized. For example, data that DoD provided to CBO showed a revision of the 2004 amount from \$125 million to \$188 million.

23. See Paul R. Sackett and Anne S. Mavor, eds., *Evaluating Military Advertising and Recruiting: Theory and Methodology*, National Research Council of the National Academies (Washington, D.C.: The National Academies Press, 2004), p. 108, available at www.nap.edu.

24. The program generated 168 contracts for the active Army and 122 contracts for the Army Reserve through early May 2006 and another 225 accessions for the Army National Guard through mid-April 2006.

Table 1-5.**The Army's Recruiting Resources**

Fiscal Year	Active Army			Army National Guard			Army Reserve		
	Recruiters ^a	Recruiter Support (Millions of dollars)	Advertising (Millions of dollars)	Recruiters ^a	Recruiter Support ^b (Millions of dollars)	Advertising (Millions of dollars)	Recruiters ^a	Recruiter Support ^b (Millions of dollars)	Advertising (Millions of dollars)
2000	6,188	188.6	125.4	3,584	24.7	37.4	1,738	32.2	48.2
2001	5,156	199.4	139.8	3,608	38.2	48.9	1,724	48.2	31.3
2002	6,367	242.1	131.2	3,549	n.a.	82.7 ^c	1,438	40.6	46.3
2003	6,078	181.7	171.2	3,312	43.8	62.5	1,284	43.1	50.3
2004	5,109	226.4	177.1	3,915	45.5	114.4	1,265	39.9	62.2
2005	5,953	258.1	215.9	4,955	45.9	175.2	1,399	42.5	67.9

Source: Congressional Budget Office based on, for the active Army, data from the Department of Defense, Directorate for Accession Policy; and, for the reserve components, data from the Department of Defense, Office of Reserve Affairs, and selected Department of Defense budget books and related justification materials.

Note: n.a. = not available.

- a. For the active Army, statistics reflect the average number of recruiters for each year. For the reserve components, they reflect the number of full-time reservists filling positions as recruiters or recruiter support personnel as of the end of the year.
- b. For the reserve components, support resources also fund activities to retain soldiers.
- c. For 2002, the National Guard's reporting consolidated information on support for recruiters and advertising.

To meet their recruiting missions, the Army National Guard and Army Reserve have also increased their recruiting incentives and the resources allocated to recruiting. The reserve components operate three bonus programs: an enlistment bonus for individuals with prior service but with no military service obligation, a bonus for those without prior service, and an affiliation bonus, which may be offered to individuals with a military service obligation. The Congress enhanced the enlistment bonus program for 2005 by raising the maximum bonus for non-prior-service recruits from \$8,000 to \$10,000 and then again, for 2006, to \$20,000.²⁵ The Army National Guard, as of June 2006, was offering \$20,000 bonuses for its 10 most critical occupations, while the Army Reserve was using bonuses up to that amount to attract recruits into five selected occupations. The Congress also increased the maximum affiliation bonus from \$10,000 for 2005 to \$20,000 for 2006. Even so, as of March 2006, the Army National Guard was paying up to \$15,000 and the Army Reserve up to \$10,000. (Previously, the services typically paid \$50 per month for each month of remaining obligation.) Both Army components

also offer the statutory maximum of \$15,000 to selected prior-service recruits enlisting for a six-year obligation into certain occupations.

Between 2000 and 2002, the Army National Guard spent between \$21 million and \$82 million annually on enlistment bonuses (see Table 1-4). In 2003, the first year it did not meet its recruiting goal, expenditures for enlistment bonuses totaled \$63 million, a decline of \$18 million from the amount the previous year. In 2004, the Guard increased spending to the level of previous years. Then, in 2005, enlistment bonuses almost doubled—exceeding \$138 million. For 2006, the budgeted amount was \$147 million; for 2007, it is \$132 million.²⁶

The Army Reserve spent between \$19 million and \$42 million on enlistment bonuses in 2000 through 2004 (see Table 1-4). In 2005, when the Army Reserve experienced recruiting shortfalls, it increased its expenditures to \$61 million. It has budgeted \$103 million for 2006 and \$53 million for 2007.

25. Those levels are applicable to all national guard and reserve components, not just for the Army National Guard and Reserve.

26. Again, budgeted levels do not reflect any spending on enlistment bonuses that may be funded from supplemental appropriations for the war in Iraq.

In terms of other resources, the Army National Guard funded the fewest (3,312) full-time recruiters/recruiting support personnel this decade in 2003, the first year it experienced recruiting shortfalls (see Table 1-5).²⁷ However, in the face of continued problems in recruiting the required personnel, it increased its recruiting force to 3,915 in 2004 and 4,955 in 2005. As is true with the active Army, those new recruiters should now or shortly be fully productive. In addition to its full-time force, the Army National Guard also created the Guard Recruiting Assistance Program, or G-RAP, a pilot program in which individual reservists receive training in recruiting and then become “recruiting assistants.” For every recruit who signs up and “ships” to basic training, the recruiting assistant earns \$2,000. The Army expanded the program in February 2006, allowing National Guard members nationwide to enroll. From January 1 through mid-April 2006, assistants recruited almost 4,000 soldiers. To the extent that those individuals would not have signed up or would have required substantial efforts under the traditional recruiting system, the program has been a significant boost to recruiting.

The Army National Guard also almost doubled its spending on support for recruiting between 2000 and 2005, to \$45 million, but the largest increases occurred early in the decade. In addition, advertising expenditures grew almost fivefold over the same period. Expenditures were boosted the most in 2004 and 2005 in an attempt to reverse recruiting problems—rising from \$62 million in 2003 to \$114 million in 2004 and \$175 million in 2005.

The Army Reserve has also increased its recruiting resources recently. While the number of full-time recruiters or recruiting support personnel in the Army Reserve (at year-end) declined from 1,738 in 2000 to 1,265 in 2004, it increased 11 percent in 2005, to 1,399 (see Table 1-5). According to the Army Reserve, the number of individuals assigned as recruiters (not recruiting support personnel) declined from 1,259 in 2000 to 841 in 2004 and then jumped to 1,374 in 2005. That number has increased further to 1,794 by late August 2006, according to Army Reserve officials. Spending on recruiting support has been uneven over the period, ranging

from a low of \$32 million to a high of \$48 million. Expenditures in 2005 were increased by 7 percent over the level the previous year, to \$43 million. The Army Reserve boosted advertising expenditures more than 40 percent from 2000 through 2005, with the largest upsurge occurring in recent years.

Retention Trends

Boosting the number of troops the Army keeps in the service is another way to maintain or increase end strength, particularly when difficulties develop in recruiting. Improvements in pay and allowances may be expected to raise continuation rates in the future. However, some analysts have voiced concerns that higher sustained deployment rates than experienced in the past several decades will contribute to depressed continuation rates. Although none of the Army components achieved its recruiting goals in 2005, the active Army and the Army Reserve met their retention or continuation goals for enlisted personnel.²⁸

Quantity

The active Army states its retention goals in terms of the number, not the percentage, of soldiers retained. CBO examined retention separately among soldiers serving in their initial enlistment, those in midcareer, and careerists (see Table 1-6).²⁹ For all three seniority ranges, the Army met its retention goals for every year between 2000 and 2005. Year-to-year comparisons among those data are difficult to make, however. For example, in January 2005, the Army changed the eligibility window for deployed soldiers to reenlist from 12 months to 24 months before the expiration of their contract; the Army extended that policy change to all soldiers in April 2005. Consequently, the pool of possible reenlistees potentially nearly doubled between 2004 and 2005. Thus, the counts for 2005 and

27. The statistics on the reserve components' recruiters do not include reservists who support recruiting on an intermittent basis (by, for example, attending job fairs or escorting recruits to military processing stations) or any civilian personnel or related contracts the components might use.

28. Retention refers to the number of personnel who remain in the military after their contractual term of service expires; retention rates are often measured separately by military occupation and by seniority. Generally, retention rates are computed on a base of only those soldiers whose term of service will expire within a given fiscal year. Continuation refers to the proportion of service members who remain in the military for a specific period of time regardless of the expiration of their contract.

29. Initial enlistment refers to soldiers under their first enlistment contract regardless of their length of service. Service members who are on their second or subsequent enlistment with up to 10 years of service are categorized as being in midcareer, whereas service members with more than 10 years of service are called careerists.

Table 1-6.**The Active Army's Retention of Enlisted Personnel**

Fiscal Year	Initial Enlistments			Midcareer Personnel			Careerists		
	Actual	Goal	Percentage of Goal Attained	Actual	Goal	Percentage of Goal Attained	Actual	Goal	Percentage of Goal Attained
2000	21,402	20,000	107	24,118	23,700	102	25,791	24,300	106
2001	20,000	19,750	101	23,727	23,350	102	21,255	20,900	102
2002	19,433	19,100	102	23,074	22,700	102	15,700	15,000	105
2003	21,838	19,821	110	19,509	18,422	106	12,804	12,757	100
2004	24,903	23,000	108	21,120	20,292	104	13,987	12,808	109
2005 ^a	27,818	26,935	103	24,407	23,773	103	17,287	13,454	128

Source: Congressional Budget Office based on data from the Department of Defense, Directorate for Officer and Enlisted Personnel Management.

Note: Soldiers under their first enlistment contract regardless of their length of service are considered to be in their initial enlistment. Service members who are on their second or subsequent enlistment with up to 10 years of service are categorized as being in midcareer, whereas service members with more than 10 years of service are called careerists.

a. In 2005, the Army changed the eligibility window for soldiers to reenlist from 12 months to 24 months before the expiration of their contract. Consequently, the pool of possible reenlistees potentially nearly doubled between 2004 and 2005.

2006 include soldiers who would have reenlisted in the original reenlistment window and those individuals who would have reenlisted in later years.³⁰ Future years may have lower numbers than 2005 and 2006; fewer people will be available in the original window, as some will reenlist early.

Unlike the active component, the reserve components focus on the number of losses regardless of whether personnel have a military service obligation remaining on their contract. DoD computes attrition rates as the number of losses from a component in a period compared with the component's average end strength for the same period. The Army National Guard and Army Reserve stated ceilings for attrition rates of 19.5 percent and 28.6 percent, respectively, for 2000 through 2005. While the Army Reserve has been under its ceiling since 2000, the Army National Guard exceeded its ceiling in 2001, 2002, and again in 2005 (see Table 1-7).

However, as with the active Army's retention statistics, it is difficult to make accurate year-to-year comparisons. For example, the Army Reserve's change in the definition

of accession means that recruits who had not begun initial training were included in attrition statistics early in the decade but not in the more recent calculations. Because recruits have higher-than-average attrition rates prior to initial training, attrition rates early in the decade were higher than if the definitions had been comparable over the time period. More generally, however, declines in end strength (whether resulting from higher-than-expected losses or lower-than-expected accessions) will inflate attrition rates. For example, suppose end strength declined from 350,000 to 300,000 personnel in a fiscal year while the corresponding losses equaled 60,000. The attrition rate, as calculated by DoD, would be 18.5 percent. Instead, if end strength were stable at 350,000, the attrition rate would be 17.1 percent.³¹

Because yearly comparisons of DoD's official retention and attrition measures are difficult to make, CBO also examined trends in continuation rates as measured by the proportion of soldiers at the beginning of a fiscal year that remain in the same component and status one year later. The rates were computed for all personnel in the

30. Some individuals may decide to reenlist earlier to take advantage of bonuses. For example, soldiers deployed in a war zone 12 to 24 months before their obligation is fulfilled may decide to reenlist at that time to receive special tax-exempt reenlistment bonuses.

31. Other conditions may also distort attrition rates as calculated. For example, if individuals are temporarily dropped from the end-strength rolls—for a disciplinary reason, for instance—and then reinstated, attrition rates will be higher than they otherwise would be.

Table 1-7.**The Army Reserve Components' Attrition Rates**

Fiscal Year	Army National Guard		Army Reserve	
	Actual Percentage	Percentage Relative to Ceiling	Actual Percentage	Percentage Relative to Ceiling
2000	18.0	92.2	29.4	102.9
2001	20.0	102.6	27.4	95.7
2002	20.6	105.7	24.6	86.0
2003	18.1	92.9	22.2	77.4
2004	18.6	95.5	22.7	79.2
2005	20.2	103.6	23.5	82.1
Memorandum:				
Attrition Ceiling	19.5	n.a.	28.6	n.a.

Source: Congressional Budget Office based on data from the Department of Defense, Defense Manpower Data Center.

Note: n.a. = not applicable.

component at the start of the fiscal year, including those whose term of service would not expire until some future fiscal year.³²

CBO found that the active Army's overall continuation rates were lower in 2004 and 2005 than they had been since 1996 (see Figure 1-1 on page 14). In addition, continuation rates for initial enlistees in their fourth year of service (the point at which many face their first reenlistment decision) were more than 3 percentage points lower in 2005 than they had been in either 2000 or 2001 and lower than they had been since the mid-1990s. Despite increases in pay and the enforcement of stop-loss policies, continuation rates dropped to levels not observed in over a decade.³³ The more-recent 12-month continuation rates through February 2006 (82.8 percent overall) were slightly higher than the 2005 levels (82.4 percent overall), suggesting that the situation may improve.

The Army National Guard and Army Reserve, too, have had their continuation rates decline since 2003. However, the reserve components' rates are still at or above the levels early in the decade. The Guard's rates (at 82.2 percent overall in 2005) were just 0.3 percentage points higher than those in 2001, while the Army Reserve's (at 79.2

percent overall in 2005) were about 1.5 percentage points higher (with the difference adjusted for the change in the definition of accession).³⁴ More recent 12-month continuation rates through February 2006 suggest that the Army National Guard's and the Army Reserve's continuation rates are on an upswing; they were 83.1 percent for the Guard and 79.6 percent for the Reserve.

Pay and Reenlistment Bonuses

Active-duty military pay includes basic pay, allowances for food and housing, and other incentive pay and pay for special duty. Reservists who drill (that is, train on the weekends) are paid at twice the rate as active-duty service members' basic pay for the duration of the drill.³⁵ Reservists who are activated to continuous active duty are paid at the normal active-duty rate.

Military pay has risen substantially over the decade for both active-duty service members and reservists. In 2000, the Congress authorized that annual increases in basic pay be 0.5 percent more than the increase in wages in the

32. One failing of that measure is that changes in early attrition (when individuals enter and then leave within the same fiscal year, for example) are not reflected.

33. Stop-loss policies enable the military services to retain members beyond the length of their obligation.

34. The Army Reserve's continuation rates are not wholly comparable across years because statistics for earlier years included individuals before they attended initial training and later statistics do not. Adjusting for the changed definition requires a relatively small upward revision of about 0.3 to 0.5 percentage points in the continuation rates before 2004.

35. Traditionally, one weekend of drills (four drills) is compensated by four days of active-duty basic pay. Pay for drilling is expressed in relation to active-duty basic pay, and both increase at the same rate.

civilian sector, as measured by the Bureau of Labor Statistics's employment cost index.³⁶ The Congress has also increased housing allowances and other pay significantly.

To examine military compensation, a broader measure than basic pay, termed regular military compensation (RMC), is typically used. RMC is a construct that includes basic pay, allowances for food and housing, and the tax advantage that arises because those allowances are not taxable. Between 2001 and 2005, average RMC for the entire active-duty enlisted force showed a cumulative increase of almost 14 percent, adjusted for inflation. However, some of that increase took the form of targeted pay raises for senior enlisted service members (non-commissioned officers). For soldiers facing their first reenlistment decision, RMC rose by a smaller amount—about 10 percent, adjusted for inflation. That rate was about 13.5 percent higher than that for comparable civilians.³⁷ Similarly, the average pay for enlisted reserve personnel who drill (basic pay) increased by about 10 percent more than the pay of comparable civilians.

In the absence of any other changes, that increase in relative military pay would be expected to increase the retention of first-term active-duty personnel by about 25 percent and add more than 1 percentage point to overall continuation rates, CBO estimates.³⁸ The observed decline in the active Army's continuation rates represents the combined effects of other factors that outweighed the increase in military pay.

In addition to regular military compensation, the service components offer reenlistment bonuses to enlisted members as a way of retaining sufficient numbers in the military. The active components offer Selective Reenlistment Bonuses (SRBs), and the reserve components have the Selective Reenlistment Incentive Program (SRIP).³⁹ The bonuses are typically offered for specific skills or occupations, although in recent years, the Guard has offered an

SRIP bonus to all soldiers reenlisting into a position that matches their occupational qualifications. In the 2006 NDAA, the Congress authorized individual reenlistment bonuses of up to \$90,000 for the active-duty personnel (up from the previous year's maximum of \$60,000) and up to \$15,000 for reserve personnel.⁴⁰ That legislation also increased the maximum Critical Skills Retention Bonus (CSRB), another type of reenlistment bonus, from \$150,000 to \$200,000 for the active components and authorized the bonus (to a maximum of \$100,000) for the reserve forces. The active Army is paying CSRBs up to the maximum for some soldiers in the Special Forces, while the reserves too have begun using the bonus authority selectively.

In September 2003, the active Army introduced a \$5,000 reenlistment bonus known as the Temporary Selective Reenlistment Bonus, which was later renamed the Deployed SRB. That bonus, payable to active-duty soldiers in Iraq, Afghanistan, and Kuwait, is exempt from

36. The 2004 NDAA stipulated that the military pay raise revert to the percentage increase in the employment cost index after 2006.

37. Using data from the Current Population Survey by the Bureau of Labor Statistics, CBO calculated the 70th percentile of civilian wages for full-time male workers in nonagricultural industries with some college education and four years of experience. DoD uses the 70th percentile as a benchmark for pay for enlisted personnel. See Beth Asch and others, "An Analysis of Pay for Enlisted Personnel," *Report of the Ninth Quadrennial Review of Military Compensation*, Department of Defense, Office of the Under Secretary of Defense (Personnel and Readiness), 2002.

38. CBO applied a pay elasticity of 1.75. The pay elasticity expresses the change in retention associated with a change in relative military pay. An increase in relative military pay of 14 percent induces an increase in the reenlistment rate of 25 percent (1.75×14 percent) for soldiers at their first reenlistment point. CBO applied that increase to only those soldiers whose initial term of service would expire within a given fiscal year. The effect on overall continuation rates (for all soldiers) is smaller—increasing overall rates by more than 1 percentage point. The elasticity of 1.75 was the midpoint of elasticities reported in Matthew Goldberg, "A Survey of Enlisted Retention: Models and Findings," *Report of the Ninth Quadrennial Review of Military Compensation*, Department of Defense, Office of the Under Secretary of Defense (Personnel and Readiness), 2002. CBO made similar calculations to adjust careerists' retention rates. CBO was unable to calculate the effect of pay changes for reservists because data on the relationship between pay and retention of reservists are not available.

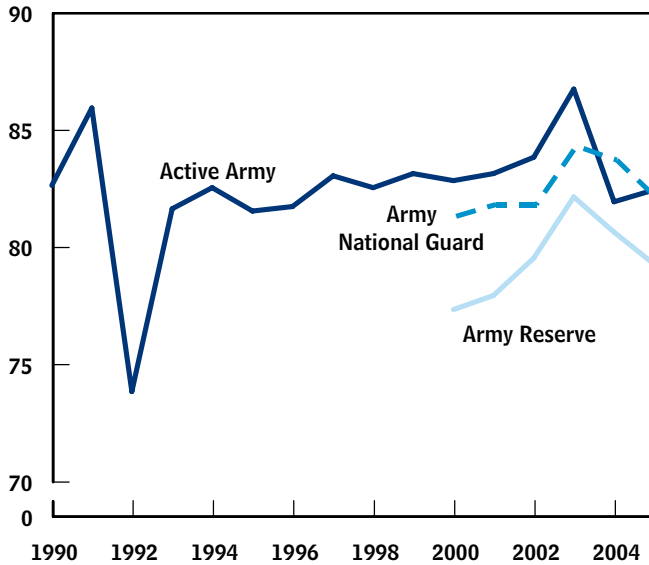
A 1 percentage-point increase in the overall continuation rate above the 2005 level for the active Army translates into a rise in end strength of more than 29,000 troops in a steady state (that is, with the force structure that evolves stabilized over 20 years or more) and more than 15,500 by the end of CBO's five-year projection period. Equivalent increases in the Army National Guard's continuation rate boosts its end strength by more than 17,500 troops in a steady state and more than 11,000 by 2010, and such increases in the Army Reserve's rate boosts its figures by more than 7,500 and 5,000.

39. The discussion here applies only to reenlistment bonuses for reservists who are drilling. Full-time reservists may be eligible for other reenlistment incentives.

40. See 37 U.S.C. 308. Those statutory maximum levels apply to all military components, not only to the Army components.

Figure 1-1.**The Army's Annual Continuation Rates**

(Percent)



Source: Congressional Budget Office based on data from the Department of Defense, Defense Manpower Data Center.

Note: Data on the Army National Guard's and Army Reserve's continuation rates before 2000 are not available.

federal income taxes. In January 2005, the Army increased the payment up to \$15,000. Although soldiers are not entitled to both an occupation- or skill-based SRB and the Deployed SRB, they are entitled to the bonus of the higher amount.⁴¹ According to the Army, 6,700 active-duty soldiers reenlisted and took the Deployed SRB in 2004; and 22,000 did so in 2005, at a cost to the Army of approximately \$227 million. As of September 21, 2006, the number of such soldiers was 23,200, at a cost of roughly \$320 million. Unlike the regular SRB, which encourages soldiers in targeted (usually undermanned) occupations to reenlist, the Deployed SRB is available to a broader group of soldiers and thus provides an incentive to soldiers in a wider spectrum of occupations to reenlist.

The Army Reserve began a similar program in January 2005. Reservists receive \$15,000 for a six-year reenlist-

ment and smaller amounts for shorter reenlistments (the same rates as occupation-specific bonuses). In 2005, about 2,050 reservists who were in-theater reenlisted and claimed a bonus, at a cost of \$28 million. The National Guard also extended its reenlistment bonus program to allow individuals in-theater who were filling positions without the normal occupational qualifications to also receive a bonus of up to \$15,000.

In 2005 alone, the active Army spent more on SRBs (including Critical Skills Retention Bonuses and SRBs for deployed personnel) than it spent in the four previous years combined (see Table 1-4). Although the Army's SRB expenditures averaged less than \$120 million annually between 2000 and 2004, they grew to \$506 million in 2005.⁴² That increase, the largest among the active components between 2000 and 2005, may have derived from concerns that the current rate of deployment could lower retention.⁴³ A large number of active and reserve soldiers have been deployed to the Iraq theater, and many have been deployed more than once since the onset of Operation Iraqi Freedom. Consequently, the deployment rate of Army troops is considerably higher now than it was during the previous decade. Without the substantial increase in SRBs during 2005, retention rates would have been still lower. In 2006, according to data from the Army, expenditures on SRBs (including CSRBs and SRBs for deployed personnel) may exceed \$650 million.

The Army National Guard's expenditures on reenlistment bonuses had been stable at \$24 million to \$28 million per year between 2000 and 2004. However, in 2005, spending on its SRIP increased 10-fold, to \$235 million. In the first six months of 2006, it spent \$185 million on the program. Similarly, the Army Reserve had spent between \$3 million and \$12 million annually on reenlistment bonuses to its forces between 2000 and 2004. In 2005, expenditures increased to \$57 million. Continuation

42. CSRB expenditures totaled \$41 million in 2005.

43. SRB expenditures (excluding those for Critical Skills Retention Bonuses) by the other services did not grow nearly as rapidly. The Navy's annual SRB expenditures ranged between \$233 million and \$344 million over the years 2000 through 2005. The Marine Corps's and the Air Force's ranged, respectively, between \$36 million and \$64 million and between \$126 million and \$263 million during those years. The Army included about \$420 million in its 2006 budget for SRBs. In its 2007 budget submission, the Army reduced that amount to \$104 million.

41. Either bonus is exempt from federal income taxes if the soldier reenlists while in a wartime theater; see Department of the Treasury, Internal Revenue Service, *Armed Forces' Tax Guide*, Publication 3 (2005).

rates were declining for both components even in light of the additional expenditures.

Stop-Loss Policies

A member of the military is obligated to serve through a date that is set in his or her initial enlistment contract, as modified by subsequent extensions, reenlistments, or “payback” periods after training. However, stop-loss policies enable the military to retain service members beyond the length of their obligation.

Until November 2003, the active Army typically invoked a stop-loss policy within certain occupational specialties. Since then, the policy has been applied instead at the unit level, affecting all members of a unit. Regardless of the separation date in their contract, active-duty soldiers under a stop-loss policy are required to remain in the Army for a period beginning 90 days prior to their unit’s deployment and extending until 90 days after their unit has returned from its deployment.

The Army National Guard and Army Reserve also applied stop-loss policies to some specialties between December 2001 and July 2003. In addition, both components have applied the policy on a unit basis since November 2002. Individuals are under the policy from the date the unit is alerted for mobilization to 90 days after demobilization.

The number of soldiers potentially affected by stop-loss policies (those soldiers whose obligation expires while they are deployed or preparing for or returning from deployment) varies from month to month as some soldiers’ contracts expire and various units either are deployed or return from deployment. Soldiers may reenlist when under a stop-loss policy, and many do so to take advantage of the tax-exempt reenlistment bonuses. Such reenlistments typically occur before a service member’s contract expires, although some soldiers reenlist under a stop-loss policy after their original contract has expired. The Army considers soldiers who are subject to a stop-loss policy and are kept in the service past their obligation as “involuntarily retained.” At any point during 2005, the active Army retained an average of about 7,000 enlisted soldiers who were involuntarily kept in the service past their contracted separation date. That number has since increased. For the 12 months that ended in March 2006, an average of 7,900 enlisted soldiers were involuntarily retained at any given time. Almost all such soldiers separate from the Army once they are no longer under stop-

loss orders. The National Guard involuntarily retained an average of 2,650 individuals for the 12 months that ended in February 2006, and the Army Reserve involuntarily retained an average of 3,260 for the 12 months that ended in January 2006.

According to CBO’s estimates, continuation rates for the active Army without the stop-loss policy would have been 0.3 percentage points lower than the 2005 rate. Similarly, for the Army National Guard and the Army Reserve, continuation rates without stop-loss policies would have been, respectively, 0.1 percentage points and 0.3 percentage points lower than the 2005 rates.

The Effectiveness of Recruiting and Retention Incentives and Resources

As stated, there are two ways Army components could maintain or increase their end strength should they decide to do so. One way is to increase the number of individuals they bring in (accessions). The other way is to retain more of their existing personnel. Those two approaches have different costs and different implications for the level of seniority of the force. Increasing accessions largely involves the costs to recruit and train new personnel. Increasing retention primarily involves the cost of extra incentives (for example, reenlistment bonuses or other pay increases) needed to encourage more personnel to stay in the military. If the Army were to emphasize retaining additional personnel, the force would become older and more experienced than it would be if the Army increased end strength through recruiting additional personnel instead. Moreover, because more-experienced personnel are more productive than recruits, the Army would not need to increase end strength as much as otherwise. However, since the trade-off between using new recruits compared with experienced personnel to accomplish a given mission is not well quantified, CBO did not consider any potential differences in the costs and productivity of those two types of personnel.

Recruiting Resources and Incentives

To obtain additional enlistments, the Army could either increase its recruiting resources (adding recruiters, for instance) or it could improve incentives to enlist (boosting compensation, for instance). CBO examined the change in enlistments that results from raising total expenditures on recruiting. Specifically, CBO presents ranges of estimates of the effectiveness of the number of recruiters, advertising levels, enlistment bonuses, and

Box 1-1.**Calculating the Marginal Costs of Increasing Enlistments**

Marginal costs describe the expense of increasing one resource to obtain one additional unit of product while holding other resources constant. For example, in the context of recruiting personnel for military service, an estimate of the increase in advertising expenditures needed to obtain one additional enlistment captures marginal costs. Elasticities of the recruiting resources relate percentage changes in those resources to percentage changes in enlistments.

The active Army's expenditures on advertising averaged about \$160 million per year between 2000 and 2005. The marginal costs for advertising can be estimated as follows:

1. Calculate the change in enlistments. Mathematically, this can be expressed as:

The change in enlistments = elasticity \times % change in advertising \times base number of enlistments.

As shown in Table 1-8, the elasticity values are 0.7 percent to 1.0 percent for a 10 percent increase, or 0.07 percent to 0.1 percent for each percentage-point increase in advertising, and the base number of enlistments is 77,000, or the aver-

age number of accessions in the active Army between 2000 and 2005.

The change in enlistments from a 10 percent increase in advertising expenditures (or \$16 million) could yield between 540 additional enlistments ($0.07 \times 0.1 \times 77,000$) and 770 additional enlistments ($0.1 \times 0.1 \times 77,000$).

2. Divide the change in costs by the additional enlistments to derive the marginal costs:

$\$16 \text{ million} \div 540 = \$30,000$ and

$\$16 \text{ million} \div 770 = \$21,000$.

In general, marginal costs are relevant only for relatively small changes in resources. Consequently, they are sensitive to wide fluctuations in expenditures and may not be valid if expenditures are outside the range over which the underlying elasticities were calculated. Because the Congressional Budget Office calculated marginal costs from average expenditures on recruiting resources from 2000 to 2005, the marginal costs should be interpreted as the increase in costs that the Army could expect from relatively small changes in enlistments from the 2000-2005 levels.

educational benefits (largely, the services' college funds)—the levers for recruiting that the Army could more easily adjust and target toward new recruits. CBO did not consider an increase in basic pay, because, although it may have a beneficial effect on recruiting, it affects the entire force and is not targeted to new recruits. More-targeted enlistment incentives such as enlistment bonuses are more effective in increasing the number of recruits.

CBO's analysis is based on a review of previous research, most of which focuses on active-duty personnel.⁴⁴ All except two of those studies were conducted prior to the current operations in Iraq and Afghanistan. While it is possible that recent changes in the recruiting environment could alter the effectiveness of individual recruiting

tools, the results of the most recent studies are consistent with those of earlier ones.

Of course, additional factors besides the Army's recruiting resources and incentives affect recruiting success. For example, the effect of the war in Iraq on youths' propensity to join the military is one such factor that defines the recruiting environment, probably quite significantly. Although statistical data on the effect of the war on recruiting are scanty, survey evidence (which is discussed in the next section of this study) does exist. Another factor, the state of the economy, is also important to recruiting success. A low unemployment rate in the civilian economy makes signing up new recruits harder because they have relatively more opportunities in the private sector. However, because the state of the economy is beyond the military's control, it is not considered in this discussion of recruiting tools.

44. See the list of studies in Appendix A.

In estimating the effectiveness of selected recruiting resources for the active Army, CBO obtained from past studies estimates of the percentage increase in enlistments that could be expected from a 1 percent increase in each recruiting resource, the so-called elasticity of each resource, and used that information to calculate the cost of increasing enlistments through a given means by one recruit, that is, the marginal cost.⁴⁵ The elasticity relates percentage changes in enlistments to percentage changes in a recruiting resource, while the marginal cost concept expresses those changes in terms of the cost per additional person enlisting. Thus, marginal costs provide a way to evaluate cost-effectiveness and inform decisions about how much of each recruiting resource should be used to obtain additional enlistments when faced with budgetary constraints.

Marginal costs are calculated using historical expenditures and the elasticities obtained from previous studies. However, marginal costs are sensitive to fluctuations in spending and may not be valid if expenditures are outside the range over which the elasticities were calculated. CBO calculated marginal costs on the basis of the average expenditures on each recruiting resource between 2000 and 2005. For that reason, the marginal costs (and elasticities) reflect the increase in costs that the Army could expect in order to achieve relatively small changes (increases or decreases) in enlistments from their 2000-2005 levels. (See Box 1-1 for further discussion of how CBO calculated the marginal costs.)

In calculating the marginal cost of recruiters, CBO included the pay and allowances of the recruiters as well as recruiting support costs. The former include basic pay, allowances, special pay and bonuses, permanent-change-of-station costs, DoD's contributions to Social Security, health care costs for recruiters and their dependents, and DoD's contributions to the trust funds for military retirement and retirees' health care (which are funded on an accrual basis). Recruiting support costs include those for

office supplies, motor vehicles, other travel, utilities, and civilian support personnel.

One might consider the inclusion of recruiters' pay and allowances unnecessary because additional recruiters are generally reassigned from other enlisted occupations, rather than being specifically recruited and added to end strength. Then, because new recruiters were already on the payroll, the incremental personnel costs would be zero. However, when personnel are shifted from other duties to recruiting, their previous functions are often backfilled by civilians or contractors, or in some cases left undone. In the former case, the recruiters' pay and allowances approximate DoD's costs to replace military personnel with civilians or contractors. If, instead, the work in or from the previous jobs is left undone, the recruiters' pay and allowances can be considered to roughly approximate the productivity lost.

According to the studies reviewed, placing more recruiters in the field has the largest effect on enlistments (see Table 1-8).⁴⁶ Although a 10 percent increase in expenditures on advertising, enlistment bonuses, or educational benefits would increase enlistments by up to 1 percent, a 10 percent increase in the number of recruiters would boost enlistments by between 4 percent and 6 percent.⁴⁷

45. Much of the literature concentrates on enlistment *contracts* rather than *accessions* of "high-quality" recruits. Some individuals who sign enlistment contracts do not follow through and actually report for boot camp (and thereby become accessions). Because such cases are relatively few and the difference between contracts and accessions would not change the calculations on the relative effectiveness of recruiting resources, CBO uses the two terms interchangeably. Researchers generally define individuals who score at or above the median in the AFQT as "high quality." Low-quality recruits are often assumed to be in excess supply, so their numbers could be increased at negligible cost.

46. For the other services, the elasticities for the effectiveness of recruiters, also obtained from previous research, are similar to that for the Army. However, the other services' elasticities for advertising, enlistment bonuses, and educational benefits are smaller than those estimated for the Army.

47. Some researchers have pointed out that many of the published elasticities for recruiters could be imprecise because they do not fully reflect certain practices by the services' recruiting offices. First, the services often place a greater number of recruiters in areas with more youths predisposed toward enlisting in the military. The observed productivity of recruiters in those areas could partially be a result of that propensity. Second, the services sometimes expand their recruiting effort by opening new offices in areas where the target population was formerly hard to reach. Expanding the recruiting infrastructure into new areas could produce larger increases in enlistments than simply adding recruiters to existing stations, and it could increase enlistments independently of the number of recruiters. The services have followed both approaches in the past, and both are reflected in the elasticities for recruiters reported in the studies that CBO reviewed. Statistical analyses, it is argued, should take those factors into consideration separately. However, the existing elasticities remain useful, particularly for projection purposes if the Army's future expansion of the number of recruiters and recruiting stations followed the same proportions observed in the data from which the elasticities were estimated.

Table 1-8.**The Effectiveness of Recruiting Tools for the Active Army**

	Elasticity ^a (Percentage change in enlistments)	Marginal Costs ^b (Dollars)
Recruiters	4.0–6.0	15,000–22,000 ^c
Advertising	0.7–1.0	21,000–30,000
Enlistment Bonuses	0.3–0.8	24,000–65,000
Educational Benefits	0.7–1.0	8,000–11,000

Sources: Congressional Budget Office and various research studies (see Appendix A).

- Ranges for elasticity convey the percentage change in enlistments effected by a 10 percent change in the various recruiting tools (for recruiters, a change in their number; for the other resources, a change in expenditures).
- Ranges for marginal costs convey the expenditure required of the various recruiting tools to obtain an additional enlistment. Marginal costs for each recruiting tool are calculated from both the elasticities reported in this table and the average levels of each recruiting tool in the Army's budget from 2000 to 2005. Marginal costs do not include any costs or receipts to the federal, state, or local governments outside of the costs incurred by the Department of Defense—for example, receipts from income taxes that recruits pay on enlistment bonuses.
- Marginal costs for recruiters include support costs such as those for office supplies, civilian personnel support, vehicles, travel, utilities, and so forth. Marginal costs for recruiters without those support costs would be in the range of \$11,000 to \$16,000.

However, enlistments do not increase very much immediately after an increase in the number of recruiters. New recruiters tend to have little or no experience; they generally sign up few recruits during their first six months on the job and do not reach full productivity until one year or more after their assignment begins.⁴⁸

48. Although increasing the number of recruiters would help the Army, research also shows that increasing the Army's recruiters could harm other services' recruiting. For example, one study found that a 10 percent increase in the Army's recruiting effort would reduce enlistments in the Navy by 1.3 percent and in the Marine Corps by the same amount (the finding for the Air Force was not statistically significant); see John T. Warner, Curtis J. Simon, and Deborah M. Payne, "The Military Recruiting Productivity Slowdown: The Roles of Resources, Opportunity Cost, and the Tastes of Youth," *Defense and Peace Economics*, vol. 14, no. 5 (October 2003), pp. 329–342.

Educational benefits also entice some qualified youths to join the military. The result is not surprising, as an increasing proportion of youths attend postsecondary education.⁴⁹ The military often targets educational benefits to specific occupations in high demand to help channel personnel into those areas.

According to the literature that CBO reviewed, marginal costs for recruiters and educational benefits are lower than for advertising and enlistment bonuses. But because the elasticities for educational benefits, advertising, and enlistment bonuses are similar, their relative cost-effectiveness is sensitive to the historical expenditure levels used to calculate the marginal costs.⁵⁰

On the basis of the elasticities obtained from previous research, CBO also calculated the resources that would be necessary to increase accessions by 6,600, the shortfall that the active Army experienced in 2005. The additional enlistments should have been enough to enable the active Army to achieve its 2006 goal of 80,000 recruits. Even though that magnitude of increase in enlistments might be considered large (as opposed to the small changes embodied in the concept of marginal costs), CBO includes it here to provide a general sense of how much the Army might need to spend to meet its goals.

In examining the effectiveness of recruiting resources, CBO has assumed that all other potential influences on the propensity to enlist, such as the state of the economy, are held constant. However, as previously discussed, other factors besides recruiting resources can change the services' recruiting success significantly. For instance, an increase in the civilian unemployment rate from its 2006 year-to-date average of 4.7 percent to 5.7 percent (a

49. A CBO paper documented the education of enlisted personnel and the effect on retention; see Congressional Budget Office, *Educational Attainment and Compensation of Enlisted Personnel* (February 2004).

50. The relatively high marginal cost of advertising may indicate a saturation effect. The cost was calculated from the average advertising budget between 2000 and 2005, which was higher than budgeted levels for enlistment bonuses and educational benefits. Thus, a fixed percentage change in the advertising budget implies a comparatively high expenditure to induce a given percentage increase in enlistments. The marginal cost of enlistment bonuses is also relatively high because the 2005 budget levels already capture the fact that when a bonus is offered, it must be paid to all those who are eligible even though many of them would have enlisted anyway.

21 percent increase) could increase enlistments by about 8,000 without any increase in recruiting resources.⁵¹

CBO considered various combinations of increases in recruiting resources that the Army could use to obtain the necessary number of enlistments. For example, only the number of recruiters might be increased, or only advertising might be increased, to generate the additional 6,600 enlistments. Alternatively, an increase in one resource could be combined with increases in other resources. As illustrative examples, CBO considered the following increases in recruiting resources from their 2005 levels to achieve the 6,600 additional enlistments:

- An increase in only the number of recruiters,
- An increase in only the expenditures on advertising,
- A 20 percent increase in advertising in combination with an increase in the number of recruiters,
- A boost in enlistment bonuses only,
- A 20 percent increase in enlistment bonuses in combination with an increase in the number of recruiters,
- A 20 percent increase in both advertising and enlistment bonuses, in combination with an increase in the number of recruiters, and
- Increases in advertising and enlistment bonuses to produce equal gains in enlistments, with no change in the number of recruiters.

The costs of those alternatives to DoD may differ from the total cost to the federal government. For instance, enlistment bonuses are taxable, making the total cost to the federal government less than the bonus amount. CBO did not include such considerations in this analysis. Also, the costs of the alternatives could be higher if the increases in the recruiting resources reached a saturation point (implying diminished productivity) that was not reflected in the elasticities.

By CBO's calculations, the Army would need an additional 800 to 1,100 recruiters to achieve its goal of 80,000 accessions (see Table 1-9). Adding that many

recruiters to the average number of fully productive recruiters from 2005 would yield a total number of up to 6,400.⁵² The Army has increased its recruiting resources substantially since 2004, including adding more than 1,500 recruiters for a total recruiting force of almost 6,500 by September 2005. Because of the on-the-job learning that occurs, those additional recruiters would have been productive for only a portion of 2005 but would have contributed more fully to the 2006 recruiting goal. The 2005 increases in recruiters alone should have enabled the Army to achieve its 2006 goal, CBO estimates (assuming that the recruiting environment did not deteriorate).⁵³

Consistent with the relative marginal cost of each recruiting resource, increasing the number of recruiters to obtain the additional 6,600 enlistments is less costly than increasing only advertising expenditures or enlistment bonuses. The additional recruiters would cost between \$98 million and \$147 million to achieve 6,600 additional enlistments, whereas the alternatives that would increase advertising and enlistment bonuses separately would cost \$137 million to \$195 million and \$161 million to \$429 million, respectively. However, a combination of increases in advertising or enlistment bonuses with a higher number of recruiters would cost only slightly more than using recruiters alone. For example, a 20 percent increase in advertising expenditures in combination with increasing the number of recruiters (by between 600 and 900) would cost between \$115 million and \$153 million, while a similar combination of boosts in enlistment bonuses and the number of recruiters (providing an additional 700 to 1,000 recruiters) would cost between \$118 million and \$160 million. Combining all three resources (a 20 percent increase in advertising and enlistment bonuses and an additional 500 to 700 recruiters) would cost between \$135 million and \$166 million. Finally, increasing both advertising and enlistment bonuses (to

51. That estimate is based on an unemployment elasticity of about 0.5, obtained from the research studies examined.

52. On the basis of discussions with DoD officials, CBO estimates that it takes newly assigned recruiters about six months to be productive. Thus, with that lag, only the recruiters assigned between April 2004 and March 2005 would have contributed fully to recruiting in fiscal year 2005, which ran from October 2004 to September 2005.

53. It is possible that an increase in the number of recruiters by one service may reach a point at which the services compete with one another for the same potential recruits. In such a situation, recruiters' productivity would probably decline. CBO did not include that effect in its analysis.

Table 1-9.

Costs for the Active Army to Obtain an Additional 6,600 Enlistments Using Various Recruiting Tools

(Millions of 2007 dollars)

Scenario	Recruiters		Advertising	Enlistment Bonuses	Total Cost
	Number	Cost			
Increase in Recruiters Only	800–1,100	98–147	n.a.	n.a.	98–147
Increase in Advertising Only	n.a.	n.a.	137–195	n.a.	137–195
20 Percent Increase in Advertising, with the Remainder Achieved Through Additional Recruiters	600–900	76–113	40	n.a.	115–153
Increase in Enlistment Bonuses Only	n.a.	n.a.	n.a.	161–429	161–429
20 Percent Increase in Enlistment Bonuses, with the Remainder Achieved Through Additional Recruiters	700–1,000	85–127	n.a.	33	118–160
20 Percent Increase in Advertising and Enlistment Bonuses, with the Remainder Achieved Through Additional Recruiters	500–700	62–93	40	33	135–166
Increase in Advertising and Enlistment Bonuses	n.a.	n.a.	68–98	81–215	149–313

Source: Congressional Budget Office.

Note: n.a. = not applicable.

produce equal gains in enlistments) without increasing the number of recruiters would cost between \$149 million and \$313 million.

The analytic result that increasing the number of recruiters is the least costly alternative does not suggest that the other alternatives do not also play important roles. First, as a practical matter, it might not be possible to achieve a timely increase in the number of recruiters. Selecting and assigning hundreds of recruiters to the various geographic locations where they might be needed takes time. Moreover, the recruiters will require training and will not be fully productive early in their assignments. And, as mentioned, a resource (such as recruiters) might reach a saturation point if there are large-scale increases in it.

Although educational benefits appear cost-effective, that appearance may be misleading. For instance, some educational benefits have been criticized as a recruiting tool because they are of value to service members only after

they leave the military. Thus, educational benefits may encourage enlistments but discourage reenlistments. In addition, the financing mechanism for educational benefits makes estimating an elasticity that measures their effectiveness difficult. The Department of Veterans Affairs (VA) pays the base benefit under the Montgomery GI Bill, but the individual military services may pay “kickers” that enhance the DoD-wide benefit. Increases in the GI Bill’s base benefit have enabled the Army to reduce its payments for kickers by over one-half between 2000 and 2005.⁵⁴

54. For example, the basic benefit under the GI Bill for veterans who have completed three or more years of service and are engaged in full-time institutional training increased from \$650 per month (or \$23,400 for 36 months) in 2000 to \$1,034 per month (or \$37,224 for 36 months) in 2005. Conversely, Army College Fund expenditures in the Army’s budget decreased from \$117 million to \$46 million in the same period. Army officials indicated that the drop in the Army College Fund expenditures was mostly due to the increase in the GI Bill’s basic benefit.

Table 1-10.

The Effectiveness of Recruiters and Related Costs for the Army National Guard and the Army Reserve to Attain Their 2006 Accession Goals

	Army National Guard	Army Reserve
Elasticity ^a (Percentage change in enlistments)	6.0–9.0	7.0–8.0
Marginal Costs ^b (Dollars)	14,000–21,000	10,000–11,000
Additional Enlistments Needed to Achieve 2006 Goal ^c	20,000	12,000
Increase in Number of Recruiters Needed to Obtain Additional Enlistments	2,000–3,000	800–1,000
Cost of Additional Recruiters (Millions of dollars)	275–412	120–137

Source: Congressional Budget Office.

- Ranges for elasticity convey the percentage change in enlistments effected by a 10 percent change in the number of recruiters.
- Ranges for marginal costs convey the expenditure for recruiters (including recruiter support costs) required to obtain an additional enlistment.
- Computed as the 2006 goal minus the actual enlistments in 2005.

Soldiers are presumably indifferent to the financing source and respond only to their total potential educational benefits, whether paid by VA or by the Army. A pitfall in estimating the behavioral elasticity from the Army's spending on the benefits is that the number of enlistments may be increasing in response to a rise in the total educational benefits, even when the Army-financed share is decreasing. A statistical relationship between the Army's share and the number of enlistments will yield an elasticity that is too small or even negative, masking the true (positive) relationship. For those reasons, the published elasticities for educational benefits are somewhat suspect. Although CBO presents those elasticities (in Table 1-8) for the sake of completeness, it has avoided using them in the policy options it considers.

Research evidence on the effectiveness of recruiting resources for the Army National Guard and the Army Reserve is scanty, although one study from 1991 presented evidence on recruiters' effectiveness. That research indicated that if the Guard boosted its reserve recruiting force by 10 percent, enlistments might increase by between 6 percent and 9 percent, and that if the Army Reserve did the same, enlistments might go up by between 7 percent and 8 percent.⁵⁵ Those estimates sug-

gest that recruiters are at least as effective in the reserve components as they are in the active Army.

Accessions in the National Guard totaled about 50,000 in 2005, but its recruiting goal for 2006 was about 20,000 higher, at 70,000 recruits. The Guard increased its number of recruiters from 3,915 at the end of 2004 to 4,955 by the end of 2005. The number of recruiters who were fully productive at the end of 2005 would be somewhere in between, perhaps about 4,400 (the average of the two numbers). According to CBO's estimates, to meet its goal with solely an increase in the number of recruiters, the Guard would have needed 2,000 to 3,000 more than that, at a cost of between \$275 million and \$412 million (including support costs) (see Table 1-10).

Similarly, the 2006 recruiting goal for the Army Reserve, about 36,000 recruits, represented an increase of about 12,000 above the number of recruits in 2005. The Army Reserve increased its number of recruiters (including support personnel) from 1,265 at the end of 2004 to 1,399 by the end of 2005. The number who were fully productive in 2005 would be about 1,300. By CBO's estimates, the Army Reserve would have needed an additional 800 to 1,000 recruiters at a cost of \$120 million to \$137 million to achieve its goal in 2006.

In addition to boosting recruiting resources, the Army could consider changing or revising some of its policies on enlistment. The Army could consider more aggres-

55. See Hong W. Tan, *Non-Prior Service Reserve Enlistments*, R-3786-FMP/RA (Arlington, Va.: RAND, 1991). That study and others CBO reviewed did not cover recruiting resources such as advertising, bonuses, and educational benefits.

sively targeting certain individuals who, although they have alternative high school credentials like GED (general educational development) certificates, have been shown to perform well in the military. For example, GED certificate holders who score high on the qualification test (in category I or II) have attrition rates that are similar to that of individuals with regular high school diplomas (in categories I to IIIB). However, the number of new recruits generated by such targeting may not be large, and new methods to accurately identify such individuals may be needed.

Retention Incentives

Some of the factors that affect recruiting success also influence service members' decisions to stay in or leave the military, such as the state of the economy and overall military compensation. Other factors include promotion opportunities, job conditions, and time away from home or deployed.

Increases in basic pay are usually applied across the whole force, not specifically targeted to individuals at their reenlistment point. Because it is paid to everyone in the force, a basic-pay increase is a relatively expensive way to increase the number of soldiers reenlisting. Reenlistment bonuses, in contrast, can be increased or decreased quickly at a service's discretion, targeted to individuals facing a reenlistment decision, and further targeted to selected occupations.

Because bonuses are the primary reenlistment incentive, CBO examined their effectiveness in increasing the size of the active Army.⁵⁶ According to CBO's analysis, based on a review of previous research, if the Army increased its Selective Reenlistment Bonuses by one level to all personnel at their first reenlistment point, the number of reenlistments might increase by between 1 and 3 percentage points.⁵⁷ At the midpoint of that range, the increase in bonuses would generate about 1,200 new reenlist-

ments per year for the Army.⁵⁸ The cost would be roughly \$200 million per year, or about \$170,000 per additional reenlistment.⁵⁹ The cost would include not only the amount spent on new reenlistments but also the amount spent on individuals who would have reenlisted even without the additional incentive but who would receive the SRB nonetheless.

Typically, the services use SRBs not as an across-the-board retention tool, but instead as a targeted incentive to service members in occupational specialties with high training costs or demonstrated shortfalls in retention. CBO considered several occupations that may be experiencing difficulties from increased civilian competition. Some commentators have expressed concern that the military services, and particularly the Army, are losing personnel to defense contractors who offer much higher pay to perform similar jobs within a wartime theater. Indeed, the combination of military training and possession of a security clearance makes many military personnel attractive to potential civilian employers.⁶⁰ CBO examined whether civilian competition for selected enlisted occupations in the active Army has increased in recent years and whether the Army has effectively used bonuses to mitigate any problems. To do so, CBO compared fill rates (the number of personnel divided by the authorized number of billets) with the level of bonuses provided.

In consultation with Army staff, CBO identified eight occupations for enlisted personnel (military occupational specialties, or MOSs) that may have been subject to increasing civilian competition associated with the ongoing conflicts in Iraq and Afghanistan:

56. CBO found only one paper that studied the reserve forces' use of reenlistment bonuses, which focused on the Navy Reserve exclusively. See Diana Lien, "The Effect of Enlistment and Reenlistment Bonuses on Participation in the Navy Selected Reserve," CRM D0013385.A2 (Alexandria, Va.: CNA Corporation, 2006).

57. See Goldberg, "A Survey of Enlisted Retention: Models and Findings." SRBs are typically paid in increments, or levels, with each level equal to one month of basic pay. The total bonus amount is equal to the SRB level multiplied by the number of years for which the service member reenlists.

58. That estimate assumes a "steady state" for the incentive. In the first two years that a bonus is added, the number of reenlistments could be substantially more than in a steady state. Initially, all individuals who are in their reenlistment window (up to 24 months before the end of their obligation) are offered the bonus to reenlist, but after the initial offering, only the behavior of people newly entering that period is affected.

59. CBO assumed an average bonus of \$7,750 per reenlistment. That amount is based on the monthly basic pay of an E-4 with four years of service in 2006 (or \$1,936 per month) and a period of reenlistment of four years on average.

60. David Rennie and Michael Smith, "Afghanistan/Iraq: Weary Special Forces Quit for Security Jobs," *Daily Telegraph* (London), March 31, 2004; and Walter Pincus, "Increase in Contracting Intelligence Jobs Raises Concerns," *Washington Post*, March 20, 2006.

- 18B, Special Forces Weapon Sergeant,
- 18C, Special Forces Engineer Sergeant,
- 18D, Special Forces Medical Sergeant,
- 18E, Special Forces Communications Sergeant,
- 25B, Information Technology Specialist,
- 25S, Satellite Communication Systems Operator/Maintainer,
- 31B, Military Police, and
- 74D, Chemical Operations Specialist.

Personnel in those occupations have skills that are valuable in security and protective services, an industry that has grown in importance since the September 11 attacks.

For a control group, CBO also identified two enlisted occupations that have been heavily utilized in the current conflicts but that have not necessarily faced unusual civilian competition:

- 11B, Infantryman, and
- 91W, Health Care Specialist.

CBO first compared fill rates with eligibility for an SRB.⁶¹ CBO overlaid the past seven years of fill rates in those Army occupations against the SRB multiples offered to Staff Sergeants (at pay grade E-6) in zone B (those soldiers with a length of service of between six and 10 years).⁶² CBO used the aggregate fill rates in pay grades E-5 through E-9 for the selected occupations because those rates were based on larger numbers of soldiers and therefore were more stable than the fill rates for

E-6s alone. In addition, the Army often fills a given billet (coded by MOS and pay grade) with soldiers from an adjacent pay grade. CBO did not examine soldiers in zone A (those with a length of service of two to six years) because soldiers cannot enter the Special Forces until they reach at least pay grade E-5, at which point they may apply to transfer from other MOSs. Nor did CBO examine soldiers in zone C (those with a length of service of between 11 and 14 years), because the lure of retirement pay (available after 20 years of service) makes reenlistment bonuses largely moot. The overlays indicate fill rates as well as the reenlistment bonuses that might have been necessary to achieve them. Even if fill rates at or near 100 percent have been achieved, a pattern of rising SRBs could signal a period of increasing competition from the civilian sector.

The first two occupations—18B, Special Forces Weapon Sergeant, and 18C, Special Forces Engineer Sergeant—show similar patterns of fill rates (see Figure 1-2). The fill rates for pay grades E-5 through E-9 had been falling in the early part of the decade but reversed direction and climbed to 100 percent by September 2004 or September 2005, remaining above that level through June 2006.⁶³ If there was increased civilian competition for those particular skills, it was apparently overcome by the increased SRB levels. The tripling of SRB awards in those two occupations—from one month to three months of basic pay per additional year of service commitment, or an SRB multiple that increased from a “level 1” to a “level 3”—was consistent with the Army’s overall quadrupling of its SRB budget between 2004 and 2005.⁶⁴ The two control occupations—11B, Infantryman, and 91W, Health Care Specialist—experienced steady manning at about 100 percent of authorizations, yet they too required increases from zero SRBs to level 1.5 or 2.0 (see Figure 1-2). The SRB increases for the control occupations may have been necessary to counteract any improvements in the general state of the economy or the negative effects of increases in the frequency and duration of wartime deployments. The somewhat larger SRB increases for Special Forces MOSs 18B and 18C could

61. The fill rates, particularly those for later years, may include some personnel who are being held beyond their obligated term of service under the Army’s stop-loss policy. While it is, therefore, possible that the fill rates would be lower in the absence of stop loss, the general pattern of the data would probably not differ much from that reported here.

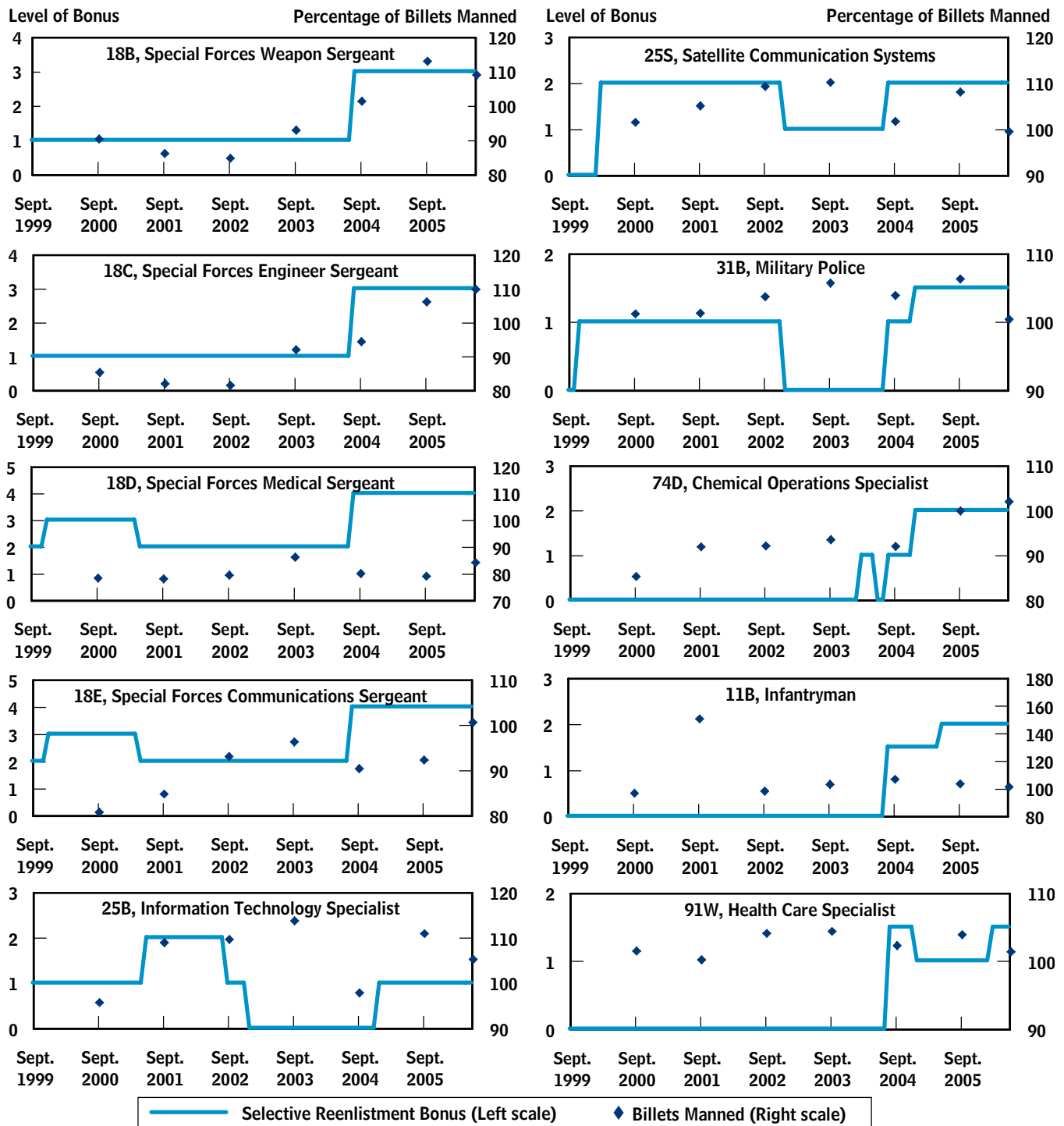
62. Within a MOS, the Army may offer higher bonuses to individuals with particular skills or who are willing to move to certain locations. CBO considered the SRB multiple that any soldier within the occupation might receive.

63. Increases in manning in 2003 for those occupations are consistent with the high overall continuation rates the Army experienced in that year.

64. A level-3 bonus for personnel at pay grade E-5 with eight years of service would be almost \$30,000 for a four-year reenlistment.

Figure 1-2.

Trends in Manning Compared with Selective Reenlistment Bonuses for Selected Army Occupations, September 1999 to June 2006



Source: Congressional Budget Office based on data from the Deputy Chief of Staff for Personnel, U.S. Army.

Note: For the percentage of billets manned, the Congressional Budget Office used the aggregate manning rates for pay grades E-5 through E-9 for the selected occupations.

reflect competition from the civilian sector for the particular training and skills possessed by those personnel.⁶⁵

The patterns are a bit more varied for the other six occupations that may have been subject to increased competition (see Figure 1-2). For example, the fill rate for Special Forces Medical Sergeants (MOS 18D) has fluctuated between about 80 percent and 85 percent since 1999. It has not approached 100 percent. However, losses from that occupation actually declined over the period, so the Army's inability to fill the positions reflected a shortage of assignments into that MOS rather than an outflow of personnel who decided not to reenlist. The remaining occupations under study had fill rates at or above 100 percent for much of the seven-year period (MOSs 25B, 25S, and 31B) or at least achieved 100 percent by the end of the period (MOSs 18E and 74D). Thus, the Army's application of SRBs appears to have successfully managed the competition that it has faced from the private sector for those particular occupations.

CBO also compared the number of losses through retirement with the levels of Critical Skills Retention Bonuses. The CSRB was first awarded to soldiers in Special Forces occupations in 2003 and then expanded to a small number of other occupations and skills in 2005. To receive the CSRB, soldiers must be near to or eligible for retirement and must be willing to extend their service by a minimum of at least two years. The top award (for an additional six-year commitment) for the Special Forces occupations or a special skills designation of "T" is \$150,000; other eligible soldiers may receive up to \$50,000 (depending on the soldier's occupation and extension of service).

According to CBO's analysis, the number of retirements has increased in all of the occupations studied. For Special Forces occupations, annual losses through retirement declined from an average of 230 soldiers in 2000 and 2001 to an average of 125 soldiers in 2002 and 2003. However, in 2005, losses increased to more than 300 soldiers. That variation occurred despite the fact that the number of personnel in those occupations did not change substantially during the period. However, the net increase in losses from the 2000-2001 average to the 2005 level was just 80 soldiers (under 2 percent of the personnel in

those occupations). Increases in CSRBs—the average award in 2005 for Special Forces occupations was \$72,200—were not sufficient to completely offset the lure of retirement pay and potentially high civilian pay for soldiers in the Special Forces occupations.⁶⁶

Ongoing Operations and Future Recruiting and Retention

The U.S. military is now about five years into the war on terrorism and more than three years into Operation Iraqi Freedom. Youths joining the military today will probably be deployed at least once and possibly twice during their first term of enlistment. The combination of the duration of the conflict, the tempo of operations (length and frequency of deployments), and the generally difficult nature of deployments has led to some concerns about the continuing effects on recruiting and retaining the force. However, feelings of patriotism and a desire to serve may have increased many youths' propensity for military service. For the first time, the military is recruiting and retaining an all-volunteer force during a drawn-out war.

Potential Effect of the War on Terrorism on Attitudes Toward Military Service

The relevant opinions about military service are not only those held by potential recruits but also those of their parents, other family members, teachers, coaches, and members of the clergy—who may influence youths' decisions. Because there is little historical information for estimating the effect of the ongoing operations on the success of recruiting, CBO analyzed several surveys to assess what public perceptions might portend for recruiting.⁶⁷

The surveys show changing attitudes toward military service. While one indicator of the recruiting climate improved since September 11, 2001, another worsened in recent years.

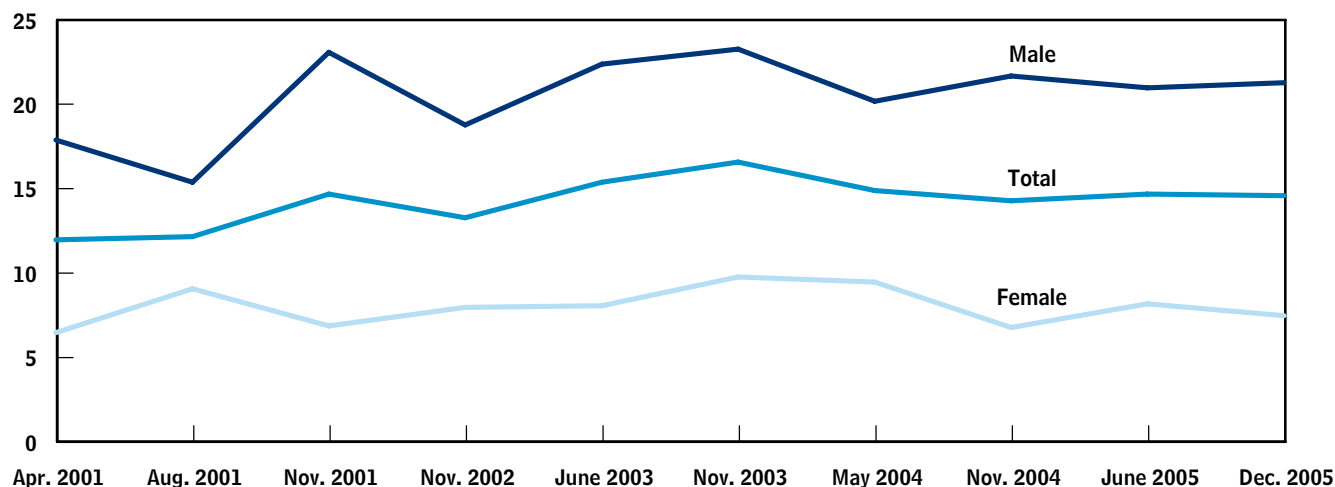
66. Of the remaining occupations that CBO examined, only the Satellite Communication Systems Operator/Maintainer (MOS 25S) position is eligible for the CSRB. Retirement losses for that occupation, although higher more recently, are small: 23 personnel in 2005 compared with 19 in 2000.

67. Through the program for joint advertising, market research, and studies, known as JAMRS, DoD regularly surveys youths to gauge their perception of and propensity to enlist in the military.

65. Within the Special Forces, some "skill groups" had increases one level higher than the rest.

Figure 1-3.

Percentage of Youths Who Say They Will Probably or Definitely Join the Military in the Next Few Years



Source: Congressional Budget Office based on Department of Defense, Joint Advertising, Market Research, and Studies Program, Department of Defense Youth Polls 1 Through 10, April 2001 to December 2005.

One survey includes a random sample of roughly 3,000 youths ages 16 through 21. The sample is weighted to reflect the general population in age (within that range), sex, race/ethnicity, and educational level. Another survey includes about 1,300 people ages 22 to 85 who have a relationship with and report a direct influence on youths who are 12 to 21 years old. CBO obtained the results of 10 “waves” of the survey of youths conducted from April 2001 through December 2005 and four waves of the survey of adults conducted from August 2003 through June 2005.⁶⁸

Compared with their counterparts in a survey conducted before September 11, 2001, more youths in a November 2001 survey reported that they would “probably” or “definitely” be serving in the military in the next few years. That percentage of youths increased slightly from April 2001 (when it was 12 percent) to December 2005 (when it was 15 percent).⁶⁹ However, that propensity fluctuated over those years. It increased in the months immediately

after the September 11 attacks. It peaked in November 2003 but decreased after that, coinciding with the war in Iraq. The propensity differed by sex—with males more favorably inclined than females—but exhibited the same temporal pattern. By 2004 and 2005, that propensity remained somewhat greater than what existed before the start of the war on terrorism (see Figure 1-3).

Adults’ likelihood to recommend military service has declined in the aftermath of the Iraq war (see Figure 1-4). Throughout the period surveyed, fewer than half of the adults surveyed said that they were “likely” or “very likely” to recommend military service among post-high school options including higher education and work. Among the military components, the active Air Force, the reserve components, and the National Guard components garnered more such recommendations—around 40 percent, on average.⁷⁰ Of the active-duty components, the Army and Marine Corps—the services most likely to deploy personnel to Iraq or Afghanistan—had the fewest recommendations, averaging less than 35 percent. The corollary finding is that a majority of adults surveyed were more likely to recommend nonmilitary career paths

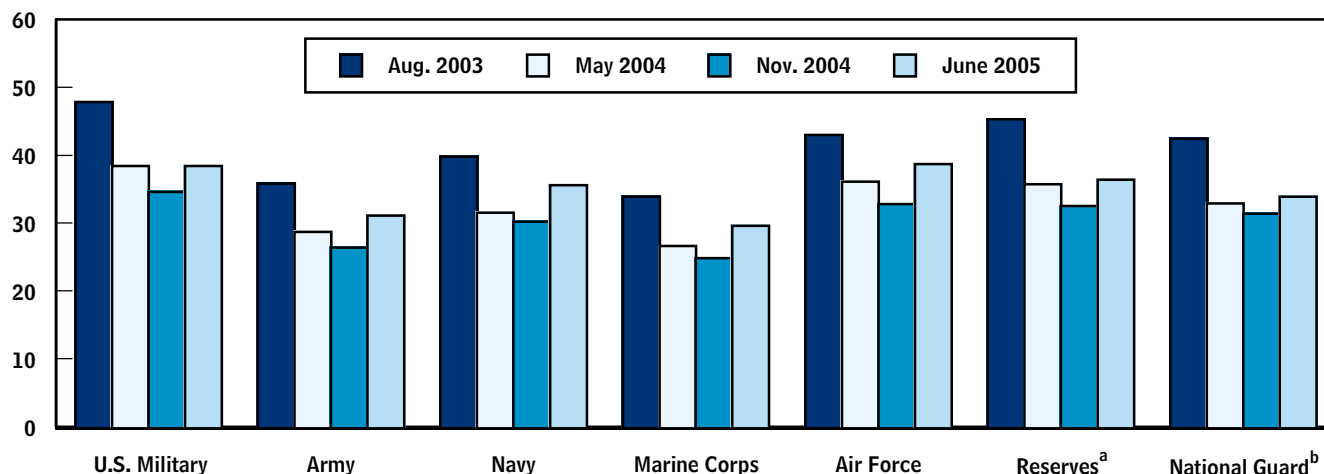
68. That period for the survey of adults lies entirely after the start of the war on terrorism and Operation Iraqi Freedom, thereby precluding the possibility of comparing the attitudes held before and after the terrorist attacks of September 11, 2001.

69. Given the available data, the extent to which those who indicated that likelihood actually joined the military is unclear.

70. Although fewer than a half would recommend military service, about 68 percent responded that they would at least somewhat support a youth’s decision to join.

Figure 1-4.

Percentage of Adults Who Would Be Likely or Very Likely to Recommend Military Service to Youths



Source: Congressional Budget Office based on Department of Defense, Joint Advertising, Market Research, and Studies Program, Department of Defense Influencer Polls 1 Through 4, August 2003 to June 2005.

Note: The adults surveyed have a relationship with and report a direct influence on youths who are 12 to 21 years old.

a. Includes all of the services' reserve components.

b. Includes the Army National Guard and the Air National Guard.

(for example, higher education). In each case, adults' likelihood to recommend military service initially declined (from the August 2003 level) but edged back up by June 2005. In addition, when asked directly in June 2005, a majority of youths and adults reported that the war on terrorism had negatively affected their likelihood to join or recommend military service.⁷¹

Effect of Deployments on Retention

Since the United States launched Operation Enduring Freedom and Operation Iraqi Freedom, hundreds of thousands of U.S. active-duty and reserve personnel have been deployed to Afghanistan and Iraq. Many of them have been deployed more than once. The length and pace of deployments today are greater than U.S. forces have seen during the previous decade. Furthermore, the conflicts in the two countries—though different—both provide a hostile and challenging environment for U.S. personnel. The demands of the deployments have led DoD to activate segments of its personnel that it would

not ordinarily tap. For instance, since the beginning of Operation Iraqi Freedom, the Army and Marine Corps—the services supplying the bulk of ground troops—have had to involuntarily call up inactive reservists in the Individual Ready Reserve (IRR).⁷² The latest call-up was announced in August 2006 for up to 2,500 Marines in the IRR.⁷³ The Marine Corps previously involuntarily called up about 2,000 Marines in the early days of the war in Iraq. The Army has also used its IRR since September 11, 2001, calling up about 5,600 soldiers in July 2004 to help in Iraq.⁷⁴

71. About 62 percent of the youths surveyed reported that they were less likely to join the military and 52 percent of the adults said that they were less likely to recommend military service because of the war on terrorism.

72. The IRR includes personnel who have completed their initial active-duty enlistment but are within their mandatory eight-year military service obligation. Although service members typically transition to civilian life after serving on active duty, they are liable to be called up when needed to fulfill the remainder of their obligation. As of September 2005, there were more than 59,000 former Marines and more than 111,000 soldiers in the IRR.

73. See U.S. Marine Corps, Public Affairs Office, "Marines May Recall Some Recent Veterans to Active Duty" (press release no. 0825-06-1238, August 23, 2006). Those affected Marines would be activated for 12 to 18 months of duty.

74. See U.S. Army, Army Public Affairs, "IRR Soldiers to Be Mobilized" (news release, Washington, D.C., June 30, 2004).

CBO examined available research evidence from pre-September 11 and post-September 11 deployments. The earlier deployments were generally shorter, and those involving hostilities ended relatively quickly (including Operations Desert Shield and Desert Storm). The current deployments in Iraq (and, to some extent, Afghanistan) are characterized by the drawn-out insurgency with no obvious signs that deployments will end anytime soon.

According to the studies that CBO examined, deployments in the pre-September 11 era did not typically depress retention or reenlistments—if anything, deployments tended to boost retention. For the post-September 11 era, the findings are mixed, but a notable theme emerging from the studies is that how deployments are carried out plays an important role in determining how they affect retention. The results of past and more-recent studies may not reflect the future, however. If the war was to be perceived more positively or negatively than it was earlier in the conflict, the effects of deployments on retention might become less or more pronounced.

Pre-September 11. According to the research examined by CBO, the effect of deployments occurring before the September 11 attacks on retention was generally positive. A RAND study of the active components found that first-term personnel who were deployed had higher reenlistment rates than first-term personnel who were not.⁷⁵ The study also found that reenlistment rates tended to increase with the number of hostile deployments and changed little with deployments that were not hostile. Although longer deployments reduced the probability of reenlistment, the effect was small, so deployments still had a net positive effect on reenlistment.⁷⁶ For second-term personnel, the findings were similar.

A study on the reserves found that being mobilized during Operations Desert Shield and Desert Storm had little effect on retention.⁷⁷ However, the study found a modest

positive effect on retention among reservists who perceived their own chances of being called up as “high.”

Navy ships are routinely deployed to various parts of the world as part of their mission. Those routine deployments may sometimes be associated with lower retention, according to one study.⁷⁸ However, Navy deployments to crises (in Operations Desert Shield and Desert Storm, for instance), another study found, had no effect on reenlistment rates, but quick turnarounds (that is, little time between deployments) tended to lower reenlistments.⁷⁹ In addition, attrition decreased during those crises but then increased afterward.⁸⁰

Post-September 11. Researchers are just beginning to analyze the effects of post-September 11 deployments on retention. The studies examined by CBO analyzed individual-level reenlistment data as well as responses of service members during focus groups and surveys. On the effect of a deployment itself on retention, the findings are mixed: in some cases, deployments had no effect on retention, while in other cases, they were associated with lower retention. Collectively, those studies point to the factors that service members cite as negatively affecting their intention to stay in the military: stress associated with high workload and long work hours while deployed, uncertainties surrounding deployment dates, short-notice deployments, and insufficient downtime between deployments.

To find out how the changed nature of military service affects reenlistment intentions, one study by RAND analyzed data from a focus group and from surveys of military personnel in each service conducted by the Defense Manpower Data Center.⁸¹ The study's findings suggest

75. James Hosek and Mark E. Totten, *How Deployments Influence Reenlistment*, MR-1594-OSD (Santa Monica, Calif.: RAND, 2002).

76. For the Army, longer deployments actually increased the probability of reenlistment by first-term personnel.

77. Sheila Nataraj Kirby and Scott Naftel, *The Effect of Mobilization on Retention of Enlisted Reservists After Operation Desert Shield/Storm*, MR 943-OSD (Santa Monica, Calif.: RAND, 1998).

78. Timothy Cooke, Alan Marcus, and Aline Quester, “Personnel Tempo of Operations and Navy Enlisted Retention,” Research Memorandum 91-150 (Alexandria, Va.: CNA Corporation, 1992).

79. Heidi L.W. Golding and Henry S. Griffis, *How Has PERSTEMPO's Effect on Reenlistments Changed Since the 1086 Navy Policy?* CAB D0008863.A2 (Alexandria, Va.: CNA Corporation, 2004).

80. Heidi L.W. Golding and Henry S. Griffis, *Increased PERSTEMPO, Retention, and Navy Policy*, CAB D0008040.A2 (Alexandria, Va.: CNA Corporation, 2003).

81. James Hosek, Jennifer Kavanagh, and Laura Miller, *How Deployments Affect Service Members*, MG 432-RC (Santa Monica, Calif.: RAND, 2006).

that long work hours in preparing for a deployment and while deployed, uncertainties surrounding deployments, and family separation are among the main factors that negatively affect intentions to stay in the military. Both deployed and nondeployed service members who experienced more workdays that were longer than their usual workday were more likely to report lesser intention to stay. The result was more pronounced for service members who were away from their home base because they had a greater incidence of longer-than-usual workdays. Being deployed in itself did not seem to have any impact on service members' intention about reenlisting. But being away from home base longer than expected was related to lesser intention to stay in the military.

Involvement in combat operations in Iraq or Afghanistan decreased the intention to stay in the military only for officers and enlisted personnel in the Army. (The majority of combat forces in those theaters have been Army ground troops.) Since the time period covered by the survey, from mid-2002 to mid-2003, more service members have been deployed to Iraq multiple times, and the deployments have become more difficult, with more insurgency attacks and more casualties. Consequently, the negative effect of deployment on the intention to stay in the military may now be more pronounced than indicated in the data from several years ago.

Another study, on active-duty Marines, found that deployment tempo did not have a negative effect on reenlistment rates for career Marines or officers but did for first-term Marines, particularly those without dependents.⁸² Marines who were not deployed at all in 2005, the study found, had lower reenlistment rates than those who were deployed. However, longer deployments were associated with lower reenlistment rates among first-term Marines (except for those deployed for more than 500 days). That negative effect was stronger for single Marines than for those who were married or had dependents at the date of the reenlistment decision. For Marines in their second term, deployment length had no effect on reenlistment rates in 2004, but in 2005, the number and length of deployments were positively related to reenlistment rates.

82. Aline O. Quester and others, *Marine Corps Deployment Tempo and Retention in FY05*, CRMD00 13786.A2 (Alexandria, Va.: CNA Corporation, 2006).

The main concerns raised by Marines in focus group discussions included short-notice deployments,⁸³ uneven distribution of deployment duty⁸⁴ (some Marines who were not deployed wanted to be, whereas others who were deployed for longer spells wished for a break), uncertainties about deployment dates, and insufficient downtime between deployments.

For active-duty Navy personnel, loss rates decreased between September 11, 2001, and June 2003, particularly for those assigned to ships deployed in Operation Enduring Freedom.⁸⁵ However, attrition rose after the crisis was over.

Evidence on Selected Reserve members indicates that although loss rates were higher from October 2001 through July 2004 than in 2000, there was no significant difference between the rates for activated and never-activated reservists.⁸⁶ Nor did loss rates vary with the number of activations: reservists with multiple completed activations had loss rates similar to those with only one activation.⁸⁷ However, loss rates for reservists who were activated but not deployed were higher than the rates of both those activated and deployed and those never activated.

Implications of Recruiting and Retention Trends for End Strength

To examine the military's ability to sustain its operations, CBO considered how goals for end strength could be met, focusing on the enlisted forces. For each Army component, CBO modeled several scenarios, each shaped by future accession levels and continuation rates for the

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- 83. Single Marines cited short-notice deployments as a concern. Requests to fill holes in a unit's manning prior to deployment are often made on short notice, according to the study; such requests are often answered with single Marines.
 - 84. For instance, more than a quarter were deployed for fewer than 100 days during the period analyzed, and a quarter were deployed for more than 400 days.
 - 85. See Golding and Griffis, *Increased PERSTEMPO, Retention, and Navy Policy*.
 - 86. See Michelle A. Dolfini-Reed and others, *Determining Patterns of Reserve Attrition Since September 11, 2001*, CAB D0011483.A2 (Alexandria, Va.: CNA Corporation, 2005).
 - 87. Conversely, loss rates tended to increase with the length of the activation period, except for members of the Army National Guard and Army Reserve, for whom loss rates tended to decrease.

enlisted forces. Changes in end strength in a given year equal the additions to end strength (or accessions) minus the losses from end strength (derived from continuation rates).

Under most scenarios (except where noted), CBO adopted the assumptions that the new accession levels and continuation rates take effect in 2006 and continue indefinitely and that there are no phased-in changes. CBO incorporated various continuation rates in a given year for service members at different levels of experience. The end strength in the scenarios and, more particularly, the number of enlisted soldiers in each year of service will evolve over time, as past years' accession cohorts and new accessions are subjected to the new (assumed) continuation rates. Eventually, a "steady state" is reached, wherein all of the past years' accession cohorts have served a full career and separated from the military, and only the cohorts from 2006 and beyond remain in the force (at the assumed accession levels). Because military careers can span 30 years, the steady state is not reached until 30 years into the future, or 2035; as a practical matter, though, the steady-state end strength is reached 10 years earlier because relatively few soldiers continue beyond 20 years of service. But because even a 20-year horizon is too distant to inform the current policy debate, CBO reports instead the change in military personnel levels under each scenario for the five years 2006 through 2010.

The actual accession levels and continuation rates that the Army achieves will reflect a complex interplay between environmental changes (including, for example, changes in unemployment rates and deployment tempo) and the Army's reallocation of recruiting or retention resources in response to those changes. CBO's scenarios do not generally assume any particular environmental change or the Army's response.

On the basis of the forecast changes in end strength and historical data on the percentage of the force that is available for deployment, CBO also calculated changes in the number of troops available for deployment.⁸⁸ By CBO's estimates, for every 10,000 personnel, between 6,200 and 6,700 of them are assigned to deployable units—either a combat unit or a deployable support unit. Admittedly,

those calculated levels are rough approximations and do not incorporate other factors that may influence the number of deployable forces. For example, if the Army encounters difficulties recruiting or retaining individuals within certain occupational specialties, an apparently sufficient total number of deployable troops might still be inadequate because of the shortfalls in those specific occupations. Additionally, changes in the experience level of the deployable force partly determine its ability to accomplish its mission. If, for example, the Army relies more heavily on junior personnel (whose productivity is lower than that of more experienced personnel), a mission may require more troops than planned.

Active Army

According to CBO's estimates, even if the Army met its 2006 recruiting goal and achieved the (relatively low) continuation rates that it experienced in 2005 for the next several years, its end strength would drop from about 493,000 troops in 2005 to 482,000 by 2010.⁸⁹ That result implies that the Army's continuation rates in 2005 would be insufficient to sustain the force. Indeed (if the ratio of deployable to nondeployable troops remained steady), the number of troops in deployable units would drop by between 6,800 and 7,400 soldiers.

Although, by CBO's estimates, the levels of the Army's recruiting resources during the past year were sufficient to have enabled it to reach or exceed the 2006 goal for accessions, CBO also calculated what end strength would be if the lower accession level and continuation rates from 2005 continued for five years. In that case, CBO estimates, the Army's end strength would decline by an additional 20,000 soldiers over the next five years compared with what it would be if the Army attained 80,000 accessions each year. That decline translates into an additional reduction in deployable troops of between 12,400 and 13,400.

For the Army to increase its force to about 500,000 in 2006 and to surpass its authorized end strength of 512,400 troops by 2008 and reach 524,000 personnel by 2010 (thus increasing its deployable forces) would require sustained accession levels and continuation rates that have not been sustained during the past 20 years

88. For example, about 20 percent to 25 percent of personnel in the Army are assigned to units that typically are not deployed, while another 13 percent are primarily trainees, students, or personnel moving between assignments.

89. Higher continuation rates are among the factors that might help reverse that trend. The 12-month continuation rate through February 2006 showed an improvement and, if it continues, may ameliorate or reverse the predicted decline in end strength.

(although they have occurred during one- or two-year periods). But under that scenario, in 2010 the force would have 31,500 more personnel than it did in 2005 and between 19,500 and 21,100 more deployable troops. According to CBO's estimates, as a rule of thumb, each increase of 1,000 in annual accessions (maintained over a five-year period) would accumulate to boost end strength by more than 3,000 additional personnel by the end of the fifth year.

To derive its conclusions, CBO modeled six scenarios in which the active Army's enlisted end strength varies, via different possible future accession levels and continuation rates (starting in 2006). All six scenarios begin with the Army's end-strength levels on September 30, 2005: 406,900 enlisted personnel, 81,700 officers, and 4,100 cadets, for a total of 492,700 active personnel. Because future years' end-strength goals for officers and cadets are not available, CBO's scenarios assume that their numbers are maintained at 2005 levels.⁹⁰

The scenarios are characterized as follows:

- **Scenario 1, CBO's base case:** accessions of 80,000 per year (the 2006 goal) and continuation rates at the levels that existed from September 2004 through September 2005 for the next five years (82.4 percent overall). The Army has not consistently added that many recruits since before the drawdown in the 1990s, nor did it achieve its accession goal of 80,000 in 2005. However, as discussed earlier, the Army has increased its recruiting resources substantially since 2004, including adding more than 1,500 recruiters. That increase alone should have allowed the Army to meet its accession goal of 80,000 (if the recruiting environment did not deteriorate).
- **Scenario 2:** accessions of 75,900 per year and continuation rates at the 2001 levels. Such figures represent typical recruiting and retention prior to September 11,

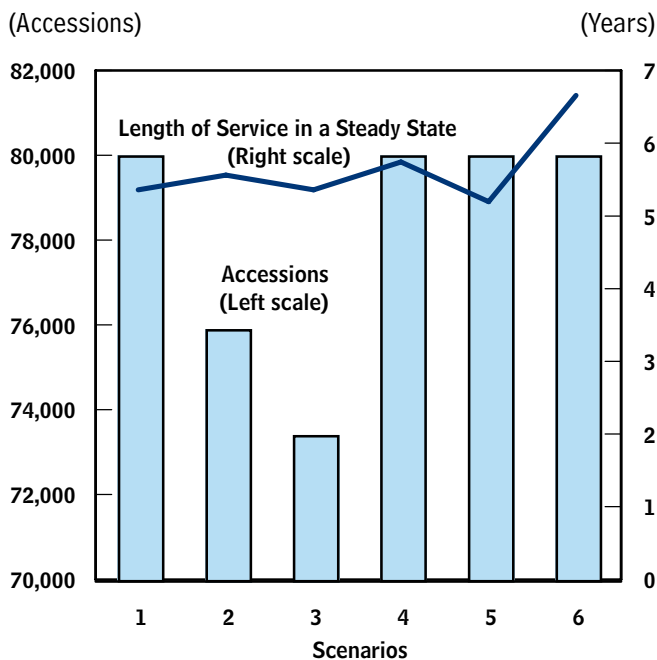
2001. For example, between 1997 and 2001, the Army recruited about that number of soldiers annually, on average, and achieved an average continuation rate of about 82.9 percent (just lower than the 2001 level) to attain end-strength levels averaging 484,000 service members. While accessions in 2001 were lower than the current year's goal, the overall continuation rate was 0.7 percentage points higher than that recorded in 2005.

- **Scenario 3:** accessions totaling 73,400 per year, the same level as achieved in 2005; continuation rates at the 2005 levels. This is the most pessimistic case that CBO considered. Although the Army had recruited nearly that number through August 2006, this case illustrates what might happen if the recruiting environment deteriorated in 2007.
- **Scenario 4:** accessions totaling 80,000 per year; continuation rates at every experience level 1 percentage point higher than the 2005 rates. This case illustrates the effect of improving continuation rates over the 2005 levels and, as such, is a more optimistic case than the base case.
- **Scenario 5:** accessions and continuation rates like those in Scenario 1 but with the effects of the stop-loss policy removed. This case is more pessimistic than the base case because the stop-loss policy enabled the Army to involuntarily retain an average of about 7,900 enlisted soldiers at any point over the 12-month period that ended in March 2006. In this scenario, CBO assumes that the policy is rescinded late in 2006, resulting in an immediate onetime drop in the size of the enlisted portion of the Army. The scenario incorporates CBO's estimate of the lower continuation rates that would have prevailed if the stop-loss policy had not been in effect.
- **Scenario 6:** accessions totaling 80,000 per year; continuation rates at the simple average of the 2002 and 2003 levels. This case is the most optimistic because the Army's continuation rates during 2002 and 2003 were at the highest levels observed in recent history. The scenario was designed to determine whether the Army could achieve an end strength of 532,400 personnel for the years 2006 through 2010 on the basis of the most favorable continuation rates and accession levels that have been experienced in more than a decade.

90. Although the Army's submission to the 2007 Future Years Defense Program does include end-strength goals of 4,000 cadets and about 79,000 officers, those goals are stated relative to a total end strength of about 482,000, which is the force level funded through the Army's annual budget submission. The Army's authorized end strength—at 502,400 for 2005—was higher. The Army achieved an end strength of 492,700 that year, with the overage above 482,000 funded by supplemental appropriations. The FYDP offers no guidance on the planned composition of the difference for 2006 through 2011.

Figure 1-5.

Annual Accessions and Length of Service in the Active Army Under Recruiting and Retention Scenarios



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (80,000 recruits) each year and continuation rates at the 2005 levels (82.4 percent overall).

Scenario 2 = Accessions at the 2001 level (75,900 recruits) each year and continuation rates at the 2001 levels (which were higher than those in Scenario 1).

Scenario 3 = Accessions at the 2005 level (73,400 recruits) each year and continuation rates at the 2005 levels.

Scenario 4 = Accessions at the 2006 goal each year and continuation rates 1 percentage point higher than the 2005 levels.

Scenario 5 = Accessions and continuation rates like those in Scenario 1 but with the effects of the stop-loss policy removed.

Scenario 6 = Accessions at the 2006 goal each year and continuation rates at the simple average of the 2002 and 2003 levels (which were significantly higher than those in Scenario 1).

Under any scenario, the average length of service will evolve as cohorts pass through the system, converging to a steady-state value.⁹¹ The average length of service in a steady state is determined solely by the continuation rates; the accession levels in a steady state do not matter. Therefore, differences in the average length of service in a steady state among scenarios indicate differences in experience levels and, consequently, the productivity of the force. Higher continuation rates imply that soldiers remain in the Army longer and are reflected in a higher average length of service. In 2005, the average length of service in the Army was 6.34 years. All of the scenarios considered by CBO except the sixth would eventually lead to a more junior force, including the base scenario, whose continuation rates imply a thinning of the seniority of the current force and a possibly less productive force (see Figure 1-5).

In most of CBO's scenarios, the Army's end strength would drop to less than its level in 2005 (see Figure 1-6). In the base scenario, end strength would fall to 482,000 in 2010, a decline of about 11,000 soldiers from the 2005 level. Under the assumption that between 62 percent and 67 percent of troops are deployable, their numbers would drop by between 6,800 and 7,400 soldiers from the 2005 level.⁹² Additionally, under this scenario, end strength in 2010 would be about 31,000 soldiers lower than the 2006 authorized end strength of 512,400 (with up to 20,000 fewer deployable troops) and more than 50,000 lower than the 2009 level of 532,000 that is authorized at the Secretary of Defense's discretion (with up to 34,000 fewer deployable troops).

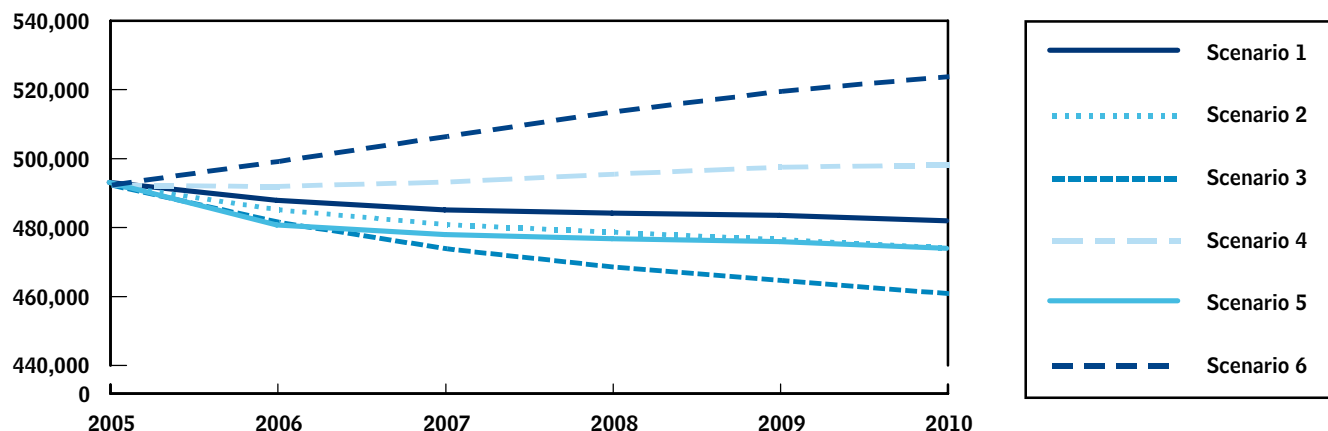
91. Yearly fluctuations in the force's overall continuation rates and average length of service may occur as different sized year-of-service cohorts occur. Consequently, the steady-state values are a better summary of underlying results than are the yearly values.

92. For a given change in accessions or continuation rates, end strength may vary considerably in the short run depending on the size of past accession cohorts and the pattern of continuation rates by year of service. For example, if continuation rates increased for a group of soldiers at a given experience level but the number of soldiers entering that group was relatively small, end strength would increase very little or barely at all. In a steady state, as all soldiers advance through the years-of-service profile, continuation rates change end strength in a predictable way.

Figure 1-6.

Effects of Recruiting and Retention Scenarios on the Active Army's End Strength

(Number of personnel)



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (80,000 recruits) each year and continuation rates at the 2005 levels (82.4 percent overall).

Scenario 2 = Accessions at the 2001 level (75,900 recruits) each year and continuation rates at the 2001 levels (which were higher than those in Scenario 1).

Scenario 3 = Accessions at the 2005 level (73,400 recruits) each year and continuation rates at the 2005 levels.

Scenario 4 = Accessions at the 2006 goal each year and continuation rates 1 percentage point higher than the 2005 levels.

Scenario 5 = Accessions and continuation rates like those in Scenario 1 but with the effects of the stop-loss policy removed.

Scenario 6 = Accessions at the 2006 goal each year and continuation rates at the simple average of the 2002 and 2003 levels (which were significantly higher than those in Scenario 1).

Under the second scenario—which illustrates what end strength would be if accessions and continuation rates returned to pre-September 11, 2001, levels—although continuation rates are higher than those observed in 2005, the lower assumed accession levels would bring about a steeper decline in end strength than in the base case; by 2010, end strength would fall to 475,000 soldiers.

As shown by the third scenario—which models end strength assuming the recruiting and retention environments of 2005 are maintained—each decrease of 1,000 in annual accessions in each of the five years would accumulate to cut end strength by almost 3,100 additional personnel by 2010. Under this scenario, CBO estimates, the Army's end strength would drop from the 2005 level by more than 30,000, to 461,000 personnel. That outcome implies 20,000 fewer personnel, or between 12,500 and 13,600 fewer deployable troops,

than CBO estimates the Army would have in the base case. In this scenario, the size of the Army would be more than 50,000 below the 2006 authorized end strength of 512,400.

Under the fourth scenario—assuming that the Army will meet its current accession goal of 80,000 and have continuation rates 1 percentage point higher than the 2005 levels—the active Army's end strength would total 492,400 in 2006 and 498,500 by 2010, higher than the Army had in 2005 by about 5,700 personnel and higher than the level in the base case by more than 15,500 by 2010. End strength would be somewhat higher than the size of the Army earlier in this decade but considerably below the current authorized end strength of 512,400.

There is some indication that continuation rates for 2006 were higher than they were in the two previous years; the overall continuation rate for February 2005 through February 2006 increased above the 2005 level by 0.4 percent—

age points, to 83.1 percent. With SRB expenditures in 2005 up by an additional \$365 million (more than a threefold increase) since 2004, soldiers' increased willingness to stay in the Army may be attributed, in part, to the aggressive reenlistment bonus programs. However, Scenario 4 implies that larger improvements in retention would be needed to maintain the force size at the 2005 level or increase it to authorized levels.

In the fifth scenario, although CBO assumes that the Army attains its 2006 accession goal of 80,000, the agency also assumes that the Army ends its stop-loss program. A drop in end strength would occur because most soldiers who were involuntarily retained would immediately separate from the Army and because lower continuation rates would prevail once the stop-loss policy was terminated, as estimated by CBO.⁹³ The Army's end strength in 2006 would fall the furthest under this scenario. After the first year, however, end strength would decline less precipitously and the size of the force by 2010 would be about 8,000 smaller relative to that in the base-case scenario.

Under the final scenario—the most optimistic CBO considered—the size of the force in 2006 would equal 499,600; the Army would exceed the 2006 authorized end strength by 2008 and by 2010 would reach 524,200 active-duty personnel, 8,000 fewer than the number authorized at the Secretary's discretion. Under this scenario, the force in 2010 would have 31,500 more personnel than it did in 2005 and, therefore, between 19,500 and 21,100 more deployable troops. Those results hinge on the Army's attaining 80,000 accessions annually, plus continuation rates as high as those observed during 2002 and 2003. Continuation rates for those two years averaged about 85 percent (when computed as a weighted average based on the 2005 force profile). The last time continuation rates reached those levels in the Army was in 1991 under Operations Desert Shield and Desert Storm. The rates in 1991 were not sustained; in fact, overall continuation rates averaged 80.2 percent in the subsequent five years.⁹⁴ However, continuation rates of 85 percent are needed—in conjunction with 80,000

annual accessions—if the Army chooses to expand to more than 512,400 active-duty troops.

The 2002 and 2003 continuation rates used in the final scenario imply an increase in the average length of service from its current level of 6.34 years to 6.64 years in a steady state. By contrast, freezing the continuation rates at 2005 levels (as was done in Scenarios 1 and 3) implies a decline to 5.34 years. The continuation rates under the final scenario are so much higher than those under the other scenarios that they imply an increase of 1.3 years in the average length of service.

Army National Guard

According to CBO's analysis, if the National Guard achieved its 2006 accession goal and maintained continuation rates at the 2005 level, end strength would equal almost 347,000 personnel in 2006 (or just more than 3,000 personnel short of its authorized level of 350,000). In that scenario, accession levels of between 61,600 and 63,500 through 2010 would enable the Guard to reach its authorized end strength of 350,000 by 2007 and remain at that level through 2010. Accessions of 70,000 for 2006 combined with an improvement of 0.9 percentage points in continuation rates over the levels in 2005 (similar to those experienced in the first half of 2006) would allow the Guard to come within 1,000 personnel of its authorized end strength in 2006.

As discussed earlier, DoD had offered a plan to reduce the National Guard's end strength from 350,000 soldiers to 333,000, but the Congress objected to that plan. CBO has examined the feasibility of both goals under several scenarios. In all scenarios, CBO assumes that the number of officers in the National Guard is maintained at the September 30, 2005, level of 36,600. The enlisted force on that date numbered 296,600.

The scenarios are characterized as follows:

- **Scenario 1, CBO's base case:** accessions of 70,000 in 2006 (the goal for that year) and lower amounts thereafter to sustain the force at the Congressionally authorized level of 350,000 personnel; continuation rates at the levels that existed from September 2004 through September 2005, 82.2 percent overall. According to

93. On the basis of data obtained from DoD, CBO estimated that about 90 percent of those soldiers kept in the Army past their contract expiration date would not reenlist when their stop-loss orders were lifted; instead, they would separate at the earliest possible opportunity.

94. The lower continuation rates may be partly attributed to the planned decreases in force size that occurred in the early to mid-1990s.

CBO's calculations, the Guard's increase in the number of full-time recruiters (from 3,915 at the end of 2004 to 4,955 by the end of 2005) alone would not have enabled it to meet the 2006 goal, the highest this decade.⁹⁵ However, more recruiters in combination with increases in other resources and incentives or improvements in the recruiting environment could have permitted the Guard to recruit that number.

- **Scenario 2:** accessions and continuation rates at the average of the 2000 and 2001 levels. Accession levels are extrapolated at that average, 61,600, through 2010, and continuation rates are 0.6 percentage points lower than the 2005 level (for all experience levels). This scenario, which is more pessimistic than the base case, shows what might happen to the size of the Army National Guard if it achieved the average levels of accessions and retention that existed in the years just prior to the start of operations in Afghanistan and Iraq.
- **Scenario 3:** accessions totaling 50,200 per year through 2010, the same level as achieved in 2005; continuation rates at the 2005 levels. Because of increases in the number of recruiters and other resources, the Guard has exceeded that number of accessions for 2006. This scenario—the most pessimistic that CBO modeled—illustrates what might occur if the recruiting and retention environment worsened.
- **Scenario 4:** accessions similar to those in the base case; continuation rates based on the 2005 levels but adjusted downward for a rescission of the stop-loss policy. This case is more pessimistic than the base case because the stop-loss policy enabled the Guard to involuntarily retain an average of about 2,650 enlisted soldiers at any point over the 12-month period that ended in February 2006. In this scenario, CBO assumes that the policy is lifted late in 2006, resulting in an immediate onetime drop in end strength.⁹⁶

- **Scenario 5:** accessions totaling 62,200 per year; continuation rates at the 2005 levels. This case keeps annual accessions within historical norms (62,200 accessions are the average for 2000 through 2002) while allowing the Guard to increase to its authorized end strength, although more gradually than under the base case.

- **Scenario 6:** accessions similar to those in the base case; continuation rates 0.9 percentage points higher than the 2005 levels. That improvement in continuation rates reflects the experience from February 2005 through February 2006. This scenario shows how quickly the Army National Guard could reach, and exceed, its authorized end strength under an assumption that it attains its 2006 accession goal and maintains the current (relatively high) continuation rates over the next several years. This scenario is the most optimistic of those modeled.

In 2005, the average length of service in the Army National Guard was 9.48 years. All of the scenarios considered by CBO would lead to a more junior force. Even under Scenario 6, in which continuation rates are higher than under the base case, the average length of service would be 8.51 years in a steady state (see Figure 1-7).

In terms of end strength, under CBO's base-case scenario, the Guard would have 346,600 personnel by the close of 2006, just short of the authorized level of 350,000 (see Figure 1-8). By 2007, it would reach its authorized level. Thereafter, the assumed accession levels would be sufficient to maintain the force at 350,000 personnel.

Under Scenario 2, the Guard's end strength would increase above the 2005 level by 8,300 personnel, reaching 341,500 by 2010. However, it would be about 8,500 fewer personnel than the authorized level and 9,500 fewer than the amount under the base-case scenario.

Under Scenario 3, the Guard's end strength would drop from the 2005 level by more than 22,000 personnel, to 310,000, or about 40,000 below the authorized level.

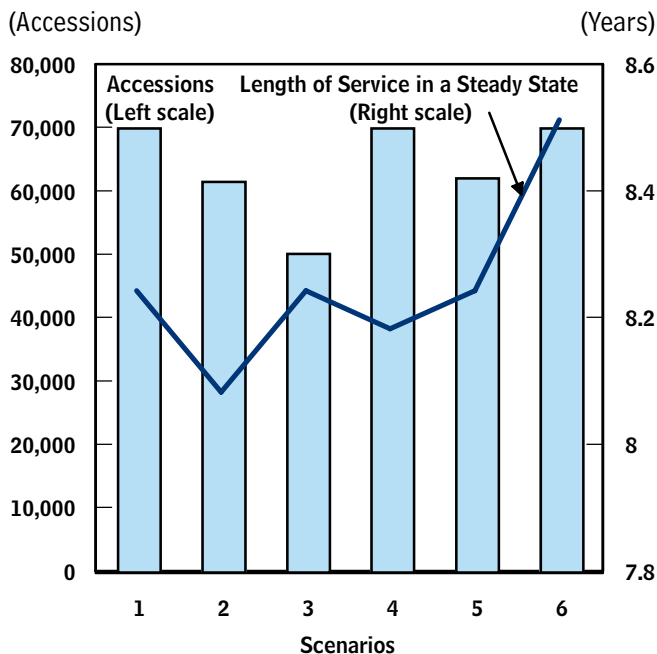
In Scenario 4, end strength would fall about 2,400 personnel below the level in the base case in the first year and then level off and almost parallel the base-case level. By 2010, end strength would be just 2,500 fewer than the level under the base case. The stop-loss policy keeps soldiers in the military longer than would otherwise be the

95. According to CBO's calculations, the number of recruiters would need to have been further increased to between 6,400 and 7,400 to meet the accession goal.

96. On the basis of data on the active Army, CBO assumed that 90 percent of involuntarily retained Guardsmen would not reenlist when their stop-loss orders were lifted.

Figure 1-7.

Annual Accessions and Length of Service in the Army National Guard Under Recruiting and Retention Scenarios



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = Varying accession levels (70,000 recruits in 2006, the goal for that year, and lower amounts thereafter) and continuation rates at the 2005 levels (82.2 percent overall).

Scenario 2 = Accessions at the average of the 2000 and 2001 levels (61,600 recruits) each year and continuation rates at their average for the same period (which was lower than the rates in Scenario 1).

Scenario 3 = Accessions at the 2005 level (50,200 recruits) each year and continuation rates at their 2005 levels.

Scenario 4 = Accessions and continuation rates like those in Scenario 1 but with the effects of the stop-loss policy removed.

Scenario 5 = Accessions at their average for 2000 through 2002 (62,200 recruits) each year and continuation rates at the 2005 levels.

Scenario 6 = Accessions at the 2006 goal each year and continuation rates 0.9 percentage points higher than the 2005 levels.

case and consequently inflates continuation rates. The rescission of that policy in this scenario would cause continuation rates to decline by 0.1 percentage points, CBO calculates, reflecting the shortening tenure of soldiers in the force. The rescission would also cause a onetime drop in the number of personnel.

Under Scenario 5, with accessions at historical norms, the Guard would meet its end-strength goal of 350,000 personnel by 2010. By that year, each increase of 1,000 in annual accessions would boost end strength by more than 3,000 personnel. For example, if accessions rose from 62,200 to 63,200 in 2006 and were maintained at that level for the next five years, end strength by 2010 would be more than 3,000 higher than it would otherwise have been.

In Scenario 6, which extends the recent rise in continuation rates through 2010, end strength would surpass 349,000 personnel by 2006 and continue climbing through 2010, reaching 361,000 at that time. A percentage-point increase in continuation rates for all experience levels would translate into more than 11,000 additional personnel by 2010 than in the base case.

Army Reserve

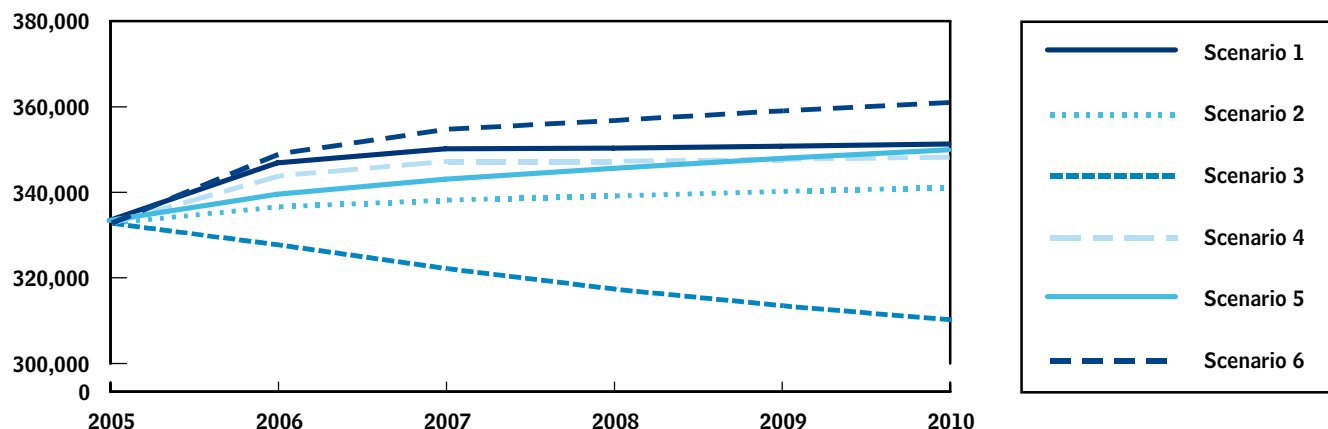
To attain an end strength of 200,000 by 2010 (the Army's plan as outlined in DoD's Future Years Defense Program), the Army Reserve would need to recruit 40,000 individuals each year, slightly more than the average number between 2000 and 2005. If it attained 36,000 recruits, its 2006 goal, each year for the next several years, the size of the force in 2010 would be 188,800, about the same as in 2005. If, instead, the Reserve focused its policies on improving retention, by CBO's estimates every 1 percentage-point increase in continuation rates would add more than 5,000 service members to end strength in 2010.

CBO modeled six scenarios of the Army Reserve's end strength, allowing enlisted end strength to vary on the basis of different accession levels and continuation rates. The starting point was the 2005 end-strength levels: 36,900 officers and 152,100 enlisted personnel. Unlike the case for the other Army components, in this instance, CBO used the FYDP as guidance for the number of

Figure 1-8.

Effects of Recruiting and Retention Scenarios on the Army National Guard's End Strength

(Number of personnel)



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = Varying accession levels (70,000 recruits in 2006, the goal for that year, and lower amounts thereafter) and continuation rates at the 2005 levels (82.2 percent overall).

Scenario 2 = Accessions at the average of the 2000 and 2001 levels (61,600 recruits) each year and continuation rates at their average for the same period (which was lower than the rates in Scenario 1).

Scenario 3 = Accessions at the 2005 level (50,200 recruits) each year and continuation rates at their 2005 levels.

Scenario 4 = Accessions and continuation rates like those in Scenario 1 but with the effects of the stop-loss policy removed.

Scenario 5 = Accessions at their average for 2000 through 2002 (62,200 recruits) each year and continuation rates at the 2005 levels.

Scenario 6 = Accessions at the 2006 goal each year and continuation rates 0.9 percentage points higher than the 2005 levels.

officers.⁹⁷ According to the FYDP, the number of officers is projected to increase to 41,400 in 2006 and then decline and stabilize at 38,900 the following year.

The scenarios are characterized as follows:

■ **Scenario 1, CBO's base case:** accessions of 36,000 (the 2006 goal) and continuation rates at the levels that existed from September 2004 through September 2005, 79.2 percent overall. The Army Reserve did not achieve that level of accessions in 2005; it recruited 24,000 new soldiers, falling short of its goal of 28,500. CBO estimates that the Army Reserve's full-time reserve recruiting force would have needed to reach

between 2,100 and 2,400 personnel to attain the 2006 accession goal. Instead, the recruiting force, which numbered 1,400 at the end of 2005, was probably not be sufficient to meet that higher level of accessions. Recruiting resources above 2005 levels or an improvement in the recruiting environment might, however, have allowed the Army Reserve to meet its 2006 accession goal.

■ **Scenario 2:** accessions and continuation rates similar to those experienced just prior to the operations in Iraq and Afghanistan (at the average of the 2000 and 2001 levels). CBO assumes accession levels of 39,200 each year through 2010 and continuation rates for all experience levels 1.25 percentage points lower than the 2005 levels.⁹⁸

97. Both the House and Senate versions of the 2007 NDAA authorize an end strength of 200,000 personnel for the Army Reserve (see H.R. 5122, passed on May 11, 2006, and S. 2766, passed on June 22, 2006). The total is consistent with all of the out-years in DoD's 2007 FYDP. However, the FYDP provides additional year-by-year detail on the split between officers and enlisted personnel.

98. Both accession levels and continuation rates before September 11, 2001, were adjusted downward to account for the Army Reserve's changed definition of an accession.

- **Scenario 3:** accessions totaling 24,000 per year through 2010, the same level as achieved in 2005; continuation rates remaining at the 2005 levels. This is the most pessimistic case that CBO modeled. Although the Reserve surpassed that level of accessions in the summer of 2006, this scenario illustrates the effect that a deteriorating environment might have on the size of the force.
- **Scenario 4:** accessions of 36,000 per year; continuation rates at the 2005 levels but adjusted (downward) for a lifting of the stop-loss policy. The Army Reserve involuntarily retained an average of about 3,260 enlisted soldiers at any point over the 12-month period that ended in January 2006. In this scenario, CBO assumes that the policy is lifted late in 2006, resulting in an immediate onetime drop in end strength. The scenario also incorporates the lower continuation rates that would prevail if the stop-loss policy was not in effect, as estimated by CBO. This case is more pessimistic than the base case.
- **Scenario 5:** accessions totaling 40,000 per year; continuation rates at the 2005 levels. Although accessions are higher than under the base case, they are still within historical norms.⁹⁹ The scenario illustrates the accession levels that the Army Reserve would have to achieve (and budget for) to increase the force from the 2005 level of 189,000 to 200,000 service members, the end strength planned in the 2007 FYDP.
- **Scenario 6:** accessions of 40,000 per year through 2010; continuation rates 0.4 percentage points higher than the 2005 levels. This scenario reflects recent experience in that the overall continuation rate from February 2005 through February 2006 showed a 0.4 percentage-point improvement from the 2005 level.

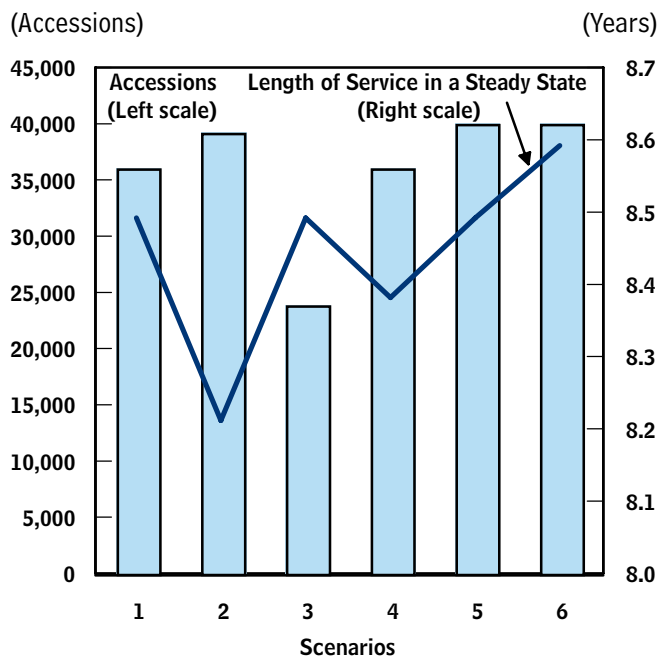
In 2005, the average length of service in the Army Reserve was 10.0 years. All of the scenarios considered by CBO would lead to a less experienced force, with the average length of service varying between 8.2 and 8.6 years in a steady state (see Figure 1-9).

Under the base case, end strength would grow by 4,600 personnel in 2006, but only 200 of those additions would be enlisted personnel. The overall increase would be almost wholly due to an increase of 4,400 in officers,

99. Again, adjusted for the new definition of an accession.

Figure 1-9.

Annual Accessions and Length of Service in the Army Reserve Under Recruiting and Retention Scenarios



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (36,000 recruits) each year and continuation rates at the 2005 levels (79.2 percent overall).

Scenario 2 = Accessions at the average of the 2000 and 2001 levels (39,200 recruits) each year and continuation rates at their average for the same period (which was lower than the rates in Scenario 1).

Scenario 3 = Accessions at the 2005 level (24,000 recruits) each year and continuation rates at the 2005 levels.

Scenario 4 = Accessions and continuation rates like those in Scenario 1 but with the effects of the stop-loss policy removed.

Scenario 5 = Accessions of 40,000 each year and continuation rates at the 2005 levels.

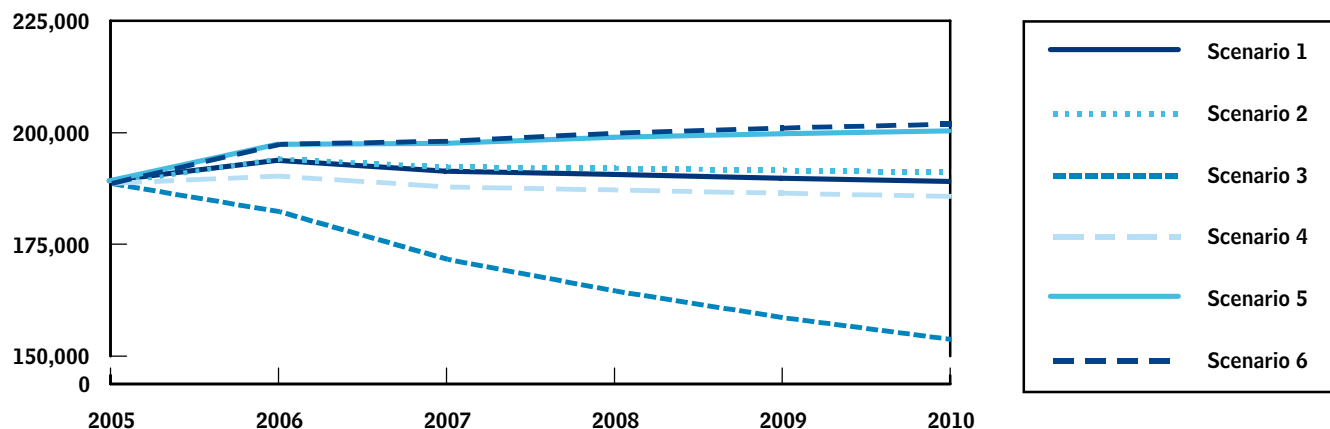
Scenario 6 = Accessions totaling 40,000 each year and continuation rates 0.4 percentage points higher than the 2005 levels.

which is planned in the FYDP and which CBO assumes will be achieved (see Figure 1-10). Under this scenario, if the Army Reserve recruited 36,000 personnel each year, end strength over the five years would be stable, but the mix would change, with 2,000 more officers and 2,000 fewer enlisted soldiers by 2010. The Army Reserve

Figure 1-10.

Effects of Recruiting and Retention Scenarios on the Army Reserve's End Strength

(Number of personnel)



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (36,000 recruits) each year and continuation rates at the 2005 levels (79.2 percent overall).

Scenario 2 = Accessions at the average of the 2000 and 2001 levels (39,200 recruits) each year and continuation rates at their average for the same period (which was lower than the rates in Scenario 1).

Scenario 3 = Accessions at the 2005 level (24,000 recruits) each year and continuation rates at the 2005 levels.

Scenario 4 = Accessions and continuation rates like those in Scenario 1 but with the effects of the stop-loss policy removed.

Scenario 5 = Accessions of 40,000 each year and continuation rates at the 2005 levels.

Scenario 6 = Accessions totaling 40,000 each year and continuation rates 0.4 percentage points higher than the 2005 levels.

would not achieve its planned end strength of 200,000 by 2010.

Under Scenario 2, end strength would grow by 2,800 above the level achieved in the base case, with the increase in accessions of more than 3,000 each year more than offsetting continuation rates that are lower by more than 1 percentage point. However, the Army Reserve still would not reach its goal of 200,000 personnel by 2010.

Under Scenario 3, the Army Reserve's end strength, CBO estimates, would drop from the 2005 level by almost 35,000, to 154,000 service members, or more than 45,000 below the planned end strength of 200,000. Each decrease of 1,000 in annual accessions would accumulate to a drop in end strength of over 2,800 personnel by 2010, compared with the result in the base case.

In Scenario 4, enlisted end strength would drop immediately upon the lifting of the stop-loss policy. In addition,

in the years following the rescission, continuation rates would decline by about 0.3 percentage points, CBO calculates.¹⁰⁰ While total end strength would increase in the first year because of gains in the number of officers, enlisted end strength would fall by about 2,800. By 2010, the enlisted force would have almost 5,000 fewer personnel than in 2005, and total end strength would be almost 3,000 lower.

Under Scenario 5, staying within historical accession levels and with no increase in continuation rates, the Army Reserve would reach its planned end strength by 2010, CBO estimates.

In Scenario 6—which has the Army Reserve staying within historic accession levels and maintaining its cur-

100. On the basis of data obtained from DoD, CBO assumed that about 90 percent of those soldiers kept in the Army Reserve past their contract expiration date would not reenlist when their stop-loss orders were lifted.

rent (relatively high) continuation rates over the next several years (through offering higher bonuses or other means)—the component would quickly reach, and shortly thereafter exceed, its authorized end strength. Each 1 percentage-point increase in continuation rates

would accumulate to an increase in force size of about 5,100 soldiers by 2010. In this scenario, the size of the force would reach 200,000 by 2008 and 202,000 by 2010.

Recruiting, Retention, and End Strength in the Marine Corps

Between 2000 and 2004, the authorized end strength for the active Marine Corps did not exceed 175,000 personnel. To support operational missions, the Congress authorized increases to 178,000 in 2005. The 2005 National Defense Authorization Act also granted the Secretary of Defense the discretion to increase the end strength to as high as 184,000 for the period spanning 2005 through 2009. The law stipulated that the Department of Defense's 2005 budget would contain only enough funding to pay for 175,000 active Marines; any additional personnel would have to be funded through supplemental appropriations. If the Secretary of Defense chose to exercise his discretion to increase end strength above 175,000 active Marines in 2006, DoD's budget submission would have to specify the estimated necessary funding that would be paid out of the annual budget as well as the estimated amount paid from emergency reserve funds or supplemental appropriations.¹

The 2006 NDAA increased the authorized level to 179,000 active Marines and reiterated the Secretary of Defense's discretion to increase end strength as high as 184,000 through 2009. End strength above 175,000 during 2006 would have to be funded through supplemental appropriations. For 2007 through 2009, funding for the entire force up to 184,000 active Marines would have to be included in the annual budget submission.²

The Quadrennial Defense Review offers additional guidance. Its expressed goal is to "Stabilize the Marine Corps' end strength at 175,000 Active and 39,000 Reserve Component personnel by Fiscal Year 2011."³

As of September 30, 2005, the active Marine Corps's end strength was 18,900 officers plus 161,100 enlisted Marines, for a total of 180,000. DoD's 2007 Future Years Defense Program calls for 19,400 officers plus 161,300 enlisted Marines from 2008 through 2011, implying a total of 180,700, which exceeds the 175,000 goal specified in the QDR. Similarly, for the reserve component, the 2007 FYDP calls for 4,100 officers and 37,400 enlisted Marines, for a total of 41,500. That total exceeds the QDR's goal of 39,000 personnel.

From 2000 to 2002, the Marine Corps exceeded its authorized end strength for active-duty personnel by about 1,100 or fewer (see Table 2-1). Since 2003, the Marine Corps's actual end strength exceeded the authorized levels by between 2,000 and 3,000 active-duty members. Contributing to that phenomenon was an increase in continuation rates and stop-loss policies.⁴

For the Marine Corps Reserve, the authorized end strength was relatively unchanged from 2000 to 2005, at about 39,600 personnel (see Table 2-1). Except in 2003, when it exceeded the authorized level by about 1,500 personnel, actual end strength remained close to the set limits, exceeding them by no more than 350 personnel.

1. See the Ronald W. Reagan National Defense Authorization Act for Fiscal Year 2005 (Public Law 108-375, sections 401 and 403; 118 Stat. 1863).

2. See the National Defense Authorization Act for Fiscal Year 2006 (Public Law 109-163, sections 401 and 403; 119 Stat. 3218).

3. Department of Defense, *Quadrennial Defense Review Report*, February 6, 2006, p. 43.

4. From 2000 to 2005, the overall continuation rates for the entire force were 81.5 percent, 81.7 percent, 82.0 percent, 82.5 percent, 82.2 percent, and 82.7 percent, respectively.

Table 2-1.**The Marine Corps's End Strength**

Fiscal Year	Active Marine Corps				Marine Corps Reserve			
	Authorized	Actual			Authorized	Actual		
		Enlisted Personnel	Officers	Total		Enlisted Personnel	Officers	Total
2000	172,518	155,383	17,938	173,321	39,624	35,699	3,968	39,667
2001	172,600	154,872	18,062	172,934	39,558	35,881	3,929	39,810
2002	172,600	155,445	18,228	173,733	39,558	36,144	3,761	39,905
2003	175,000	159,033	18,746	177,779	39,558	37,386	3,660	41,046
2004	175,000	158,641	18,839	177,480	39,600	36,178	3,466	39,644
2005	178,000	161,144	18,885	180,029	39,600	36,539	3,399	39,938
2006	179,000	n.a.	n.a.	n.a.	39,600	n.a.	n.a.	n.a.

Source: Congressional Budget Office based on, for the active Marine Corps, the National Defense Authorization Act (various years) and data from the Department of Defense, Directorate for Information Operations and Reports (available at web1.whs.osd.mil/mmid/military/miltop.htm); and, for the Marine Corps Reserve, the National Defense Authorization Act (various years) and Department of Defense, Defense Manpower Data Center, *Official Guard and Reserve Manpower Strengths and Statistics* (various years).

Note: n.a. = not available.

Recruiting Trends

Both the active Marine Corps and the Marine Corps Reserve met or exceeded their recruiting goals in terms of quantity and quality every year this decade.

Quantity of Recruits

With its authorized end strength for the active force stable or increasing minimally since 2000, the Marine Corps's had accession goals for enlisted personnel that did fluctuate substantially between 2000 and 2006 (see Table 2-2). Initial goals at the beginning of fiscal years ranged from 30,600 to 34,100—a variation of about 10 percent, similar to that experienced by the active Army.⁵ The Marine Corps met its accession goal for enlisted personnel every year during the 2000-2005 period, including those years following the invasion of Iraq. In fact, it exceeded its goal by 5 percent for 2004.

For 2005, the Marine Corps had 32,961 individuals start initial training. However, the Marine Corps allowed the pool of recruits in its Delayed Entry Program to drop to 43 percent of its original 2006 annual accession goal,

which was the first time in at least 10 years that its DEP level dropped below its target of 50 percent.

For 2006, the initial goal of 32,880 accessions was just slightly higher than the average of the goals set at the beginning of each fiscal year this decade. Through the first 11 months of fiscal year 2006 (as of August 2006), the Marine Corps had so far met its accession objective—it sent about 28,620 recruits to initial training, compared with the year-to-date goal of about 28,400, or 101 percent of the goal.

The Marine Corps Reserve's accessions equaled or slightly exceeded the goals set every year from 2000 to 2005. The 2002 goal of 9,800 was the peak for the decade (up about 11 percent from 2001), but the Reserve was able to surpass it by 3 percent (with 10,090 new enlistments).⁶ The following year, the Marine Corps Reserve set a significantly lower goal of 8,200 enlistments, which it exceeded by 1 percent. Since then, the goal has hovered between 8,000 and 8,200 recruits. End strength, in turn, has been very stable, ranging from 39,600 to 39,900 in every year but 2002, when it peaked at 41,000. The goal of about

5. For the active Army, accession goals ranged from 72,500 to 80,000 recruits, or by 9 percent.

6. Many manpower planners consider 2002 a relatively easy recruiting environment, and several of the military components exceeded their recruiting goals by a considerable margin that year.

Table 2-2.**The Marine Corps's Total Accessions of Enlisted Personnel**

Fiscal Year	Active Marine Corps				Marine Corps Reserve		
	Initial Objective	Final Objective	Actual Accessions	Percentage of Objective	Objective	Actual Accessions	Percentage of Objective
2000	33,367	32,417	32,440	100	9,341	9,465	101
2001	32,903	31,404	31,429	100	8,945	9,117	102
2002	32,422	32,593	32,767	101	9,835	10,090	103
2003	34,143	32,501	32,530	100	8,173	8,222	101
2004	30,608	29,659	31,006	105	8,087	8,248	102
2005	32,273	32,917	32,961	100	8,180	8,350	102
2006	32,880	n.a.	n.a.	n.a.	8,035	n.a.	n.a.
Average, 2000–2004	32,689	31,715	32,034	n.a.	8,876	9,028	n.a.

Source: Congressional Budget Office based on, for the active Marine Corps, data from the Department of Defense, Directorate for Accession Policy; and, for the Marine Corps Reserve, data from the Department of Defense, Office of Reserve Affairs.

Note: n.a. = not applicable.

8,000 accessions for 2006 was the lowest yet for the decade. Having sent 7,886 recruits to initial training as of August 2006, the Marine Corps Reserve had met its year-to-date goal of 7,799 recruits.

Quality of Recruits

From 2000 through 2005, the active Marine Corps met DoD's goal that at least 90 percent of recruits without prior service be high school graduates. That percentage rose from 95 percent in 2000 to peak at 98 percent in 2003 and then settled at 96 percent in 2005 (see Table 2-3). Similarly, the percentage of non-prior-service recruits in categories I through IIIA of the Armed Forces Qualification Test (or "high-quality" recruits) ranged from 64 percent to 69 percent between 2000 and 2005, exceeding DoD's goal of 60 percent. As of August 2006, for the fiscal year to date, about 70 percent of the recruits sent to initial training were high quality, and 99 percent were high school graduates.

For the Marine Corps Reserve, the quality of accessions also exceeded DoD's goals between 2000 and 2005. The percentage of accessions with high school degrees averaged 97 percent, while the percentage who were high quality averaged 78 percent—figures that are higher than those for the active Marine Corps and are among the highest for all of the military components. During the first 11 months of the current fiscal year, the portion of

high-quality recruits fell slightly for the Marine Corps Reserve but still exceeded DoD's benchmarks—as of August 2006, 74 percent of the year-to-date accessions were high quality, compared with 76 percent for the same period in 2005.

Recruiting Resources

As is the case with the other services, there has been a general upward trend in the Marine Corps's use of enlistment incentives since 2000. That trend is more pronounced in the Marine Corps Reserve, where expenditures for enlistment bonuses increased severalfold between 2000 and 2005.

Instead of using enlistment bonuses to boost recruiting in general, the active Marine Corps uses them primarily as a tool to steer recruits into particular occupations or to influence their starting dates to meet its needs. The Corps's expenditures for enlistment bonuses showed some variation between 2000 and 2005: increasing from \$6.7 million in 2000, peaking at \$9.4 million in 2004, and falling to \$5.4 million in 2005 (see Table 2-4 on page 45). Perhaps reflecting some concern about recruiting, higher amounts are budgeted for 2006 and 2007—\$7.9 million and \$8.0 million, respectively.

The number of active-duty recruiters in the Marine Corps remained stable at 2,650 between 2000 and 2005

Table 2-3.**The Quality of the Marine Corps's Recruits Without Prior Service**

(Percent)

Fiscal Year	Active Marine Corps		Marine Corps Reserve	
	High School Graduate	AFQT Categories I-III A	High School Graduate	AFQT Categories I-III A
2000	95	64	98	77
2001	96	65	96	76
2002	97	67	98	79
2003	98	69	97	80
2004	97	69	97	78
2005	96	68	96	76

Source: Congressional Budget Office based on, for the active Marine Corps, data from the Department of Defense, Directorate for Accession Policy (partly available at www.dod.mil/prhome/docs/recqual04.pdf); and, for the Marine Corps Reserve, data from the Department of Defense, Office of Reserve Affairs.

Notes: AFQT = Armed Forces Qualification Test.

The Department of Defense divides the scores on the AFQT into five ranges, or categories. Scores at or above the 50th percentile fall into AFQT categories I through IIIA.

(see Table 2-5 on page 46). However, recruiting operations for the active-duty Marine Corps and its Reserve have been consolidated. Consequently, active-duty recruiters and Active Guard/Reserve recruiters are responsible for enlisting both active-duty and reserve personnel. Recruiters may shift their efforts toward one component or the other as conditions warrant.

The active Marine Corps's expenditures to support recruiters were also stable from 2000 to 2004 and then rose almost 20 percent in 2005. Advertising expenditures rose from \$33 million in 2000 to \$43 million in 2004; in 2005, they jumped by \$25 million, to about \$69 million.

Expenditures for enlistment bonuses in the Marine Corps Reserve are small relative to those for the other components. Nevertheless, the growth in those expenditures in the Marine Corps Reserve is noteworthy. Total enlistment bonuses grew from \$426,000 in 2000 to \$1.6 million in 2005, with that change occurring as early as 2001 (see Table 2-4). Of the 2005 amount, the Corps spent \$1.2 million on bonuses for prior-service and non-prior-service personnel and \$374,000 on affiliation bonuses (which are paid to individuals who have a military service obligation but are not in the Selected Reserve). Those expenditures are more than triple the amounts in 2000.

By contrast, other recruiting resources devoted to the Marine Corps Reserve appear to have declined somewhat. The number of reservist recruiters (including support personnel) decreased from 170 in 2000 to 160 in 2004 and further to 149 in 2005 (see Table 2-5 on page 46).⁷ Advertising expenditures targeting potential reservists dropped from \$5 million for 2000 to \$3 million for 2005.

Retention Trends

As with recruiting, both the active Marine Corps and the Marine Corps Reserve met their respective goals for retention and attrition every year this decade.

Quantity

A higher proportion of active enlisted Marines are in their first term of service than is the case for their counterparts in the other active services. Thus, there is a relatively larger pool of eligible Marines at the end of their first term who are available to enter the career force. Because the number of first-term Marines who leave before the end of their obligated service has declined in recent years, the pool of eligible Marines has only gotten larger. The

7. The total level of effort cannot be known precisely, as active-duty and reserve recruiters may have shifted their work to or from enlisting reservists.

Table 2-4.**The Marine Corps's Spending on Reenlistment and Enlistment Incentives**

(Millions of current dollars)

Fiscal Year	Active Marine Corps		Marine Corps Reserve	
	Selective Reenlistment Bonuses	Enlistment Bonuses	Selective Reenlistment Incentive Program	Enlistment Bonuses
2000	35.8	6.7	0.5	0.4
2001	64.1	6.7	1.1	1.7
2002	58.2	7.0	0.9	1.5
2003	57.3	8.5	0.8	1.6
2004	51.8	9.4	0.8	1.2
2005	51.1	5.4	0.9	1.6

Source: Congressional Budget Office based on, for the active Marine Corps, data from the Department of Defense, Directorate for Accession Policy and Directorate for Officer and Enlisted Personnel Management; and, for the Marine Corps Reserve, data from the Department of Defense's personnel budget books, available at www.dod.mil/comptroller/defbudget/fy2007/index.html.

Marine Corps has typically selected about 25 percent of eligible Marines at the end of their first term to advance to the career force—a situation that provides managers some discretion in shaping that force. Should the Corps develop problems in recruiting or decide to increase its end strength, it could relax the constraints it places on reenlistments of first-term soldiers.

The Corps met its retention goals for first-term personnel and careerists each year from 2000 to 2005 (see Table 2-6 on page 47).⁸ For example, it met 103 percent of its goal for first-term personnel in 2005 and 138 percent of its goal for careerists.

As discussed above, the reserve components in general focus on losses, or attrition rates, for managing the size of the force. Personnel who leave regardless of whether they have a military obligation remaining on their contract are counted as losses and expressed as the percentage of the average strength for that year. The Marine Corps Reserve uses an attrition rate ceiling of 30 percent as a benchmark. During the 2000-2005 period, it did not exceed that limit (see Table 2-7 on page 48).

Because changes in end strength affect attrition rates as they are currently calculated and because year-to-year comparisons of (numerical) retention and attrition mea-

sures may be misleading, the Congressional Budget Office also examined trends in continuation rates as measured by the proportion of personnel at the beginning of the fiscal year that remain in the same component and status one year later. For the active Marine Corps, the overall continuation rate fell to 80.4 percent in 1999, about a 3 percentage-point drop from the level in the mid-1990s (see Figure 2-1 on page 48). Since 2000, the rates have headed up, almost returning to their mid-1990s level, reaching about 83 percent in 2005. Such elevated continuation rates persist despite the higher-than-normal deployment schedule associated with current operations. Part of the improvement has occurred because losses among personnel who have not reached the end of their obligation have not materialized to the same extent as in the past. According to Marine Corps officials, such losses are lower partly because it is more difficult for deployed soldiers to leave the service before the end of their obligation. The stop-loss policy might also have contributed to the higher continuation rates in 2002 and 2003, but that policy was rescinded in 2003 and did not significantly affect the 2004 and 2005 rates.⁹ The 12-month continuation data through February 2006 show a break in the upward trend, with the overall rate dropping to 82 percent.

8. The active Marine Corps states its goal in terms of the number (rather than the percentage) of first-term and career Marines that it needs to retain.

9. The Marine Corps instituted the stop-loss policy in December 2001 for selected occupations and expanded it to the total force in January 2003.

Table 2-5.**The Marine Corps's Recruiting Resources**

(Millions of current dollars)

Fiscal Year	Active Marine Corps			Marine Corps Reserve		
	Recruiters ^a	Recruiter Support (Millions of dollars)	Advertising (Millions of dollars)	Recruiters ^a	Recruiter Support (Millions of dollars)	Advertising (Millions of dollars)
2000	2,650	46.5	33.0	170	5.0	5.1
2001	2,650	42.9	38.1	166	4.9	4.9
2002	2,650	43.9	44.2	166	5.3	2.8
2003	2,650	47.0	41.8	168	5.3	3.0
2004	2,650	46.3	43.4	160	4.7	3.1
2005	2,650	55.1	68.5	149	4.9	3.0

Source: Congressional Budget Office based on, for the active Marine Corps, data from the Department of Defense, Directorate for Accession Policy; and, for the Marine Corps Reserve, data from the Department of Defense's personnel budget books, available at www.dod.mil/comptroller/defbudget/fy2007/index.html.

c. For the active Army, statistics reflect the average number of recruiters for each year. For the reserve components, they reflect the number of full-time reservists filling positions as recruiters or recruiter support personnel as of the end of the year.

In the Marine Corps Reserve, overall continuation rates from 2000 to 2005 ranged from about 78 percent to 83 per-cent and also showed a general upward trend, although there was a noticeable drop in 2004 (see Figure 2-1 on page 48). The rate in 2005, 82 percent, was almost 3 percentage points higher than that in 2001 and more than 4 percentage points higher than in 2000. The more-recent rate spanning February 2005 through February 2006, 81 percent, remained higher than the rates earlier in the decade.

Reenlistment Bonuses

Like the other services, the Marine Corps uses reenlistment bonuses to retain qualified personnel with needed skills.¹⁰ During 2005, active Marines in 90 to 95 different occupations received Selective Reenlistment Bonuses. That number of occupations was expected to increase to 150 in 2006. The increase should have helped the Marine

Corps meet its retention goal and improve its continuation rate.

The active Marine Corps's expenditures for SRBs peaked at \$64.1 million in 2001 and have declined since then (see Table 2-4 on page 45). By 2005, the expenditures were \$51.1 million. According to Marine Corps officials, an additional \$7.5 million for SRBs in 2005 had been requested but later found to be unnecessary. For 2006 and 2007, the Marine Corps's budget includes \$53.1 million and \$55.4 million for SRBs, respectively.

As a small military component, the Marine Corps Reserve's spending on reenlistment bonuses is low relative to that by the other services. Between 2000 and 2005, its expenditures for reenlistment bonuses grew by \$388,000 (or 71 percent), to \$936,000 (see Table 2-4).

Implications of Recruiting and Retention Trends for End Strength

In a manner similar to that used for the Army components, CBO examined how the Marine Corps could meet its planned end strength. CBO modeled several scenarios for both the active Marine Corps and the Marine Corps Reserve, taking September 30, 2005, as the starting point

10. Changes in military pay relative to pay in the civilian sector can also motivate a Marine to stay or leave the service. Because basic pay and allowances are set by the Congress regardless of the service, enlisted Marines have experienced increases in pay equal to those for their counterparts in the Army. Therefore, the earlier discussion of pay in the Army provides information on trends in military pay generally.

Table 2-6.**The Marine Corps's Retention of Active-Duty Enlisted Personnel**

Fiscal Year	Initial Enlistments ^a			Careerists		
	Actual	Goal	Percentage of Goal Attained	Actual	Goal	Percentage of Goal Attained
2000	5,846	5,791	101	63% ^b	n.a.	n.a.
2001	6,144	6,144	100	5,900	n.a.	n.a.
2002	6,050	5,900	103	7,258	5,784	125
2003	6,001	6,025	100	7,161	6,172	116
2004	6,011	5,974	101	7,729	5,628	137
2005	6,152	5,949	103	6,987	5,079	138

Source: Congressional Budget Office based on data from the Department of Defense, Directorate for Officer and Enlisted Personnel Management; and data from the Marine Corps, Office of Enlisted Plans.

Note: n.a. = not available.

- a. Service members under their first enlistment contract, regardless of their length of service, are considered to be in their initial enlistment. Service members who are on their second or subsequent enlistment are classified as careerists.
- b. In 2000, the Marine Corps calculated careerist retention as the percentage of eligible careerists retained, which was 63 percent. The following year, the Corps changed its metric to the number of individuals retained.

and projecting end strength forward from 2006 through 2010.

Active Marine Corps

If the Marine Corps could attain 32,700 accessions (its revised 2006 goal) and maintain continuation rates at the 2005 levels (or slightly higher than the rates before September 11, 2001) annually for the next several years, its end strength would grow to 184,000 personnel by 2010. That level corresponds to the discretionary amount for the 2005-2009 period that the Congress granted the Secretary of Defense. If, instead, the Marine Corps maintained lower annual accessions of 31,700, end strength would remain stable over the period at 180,000.

To derive those results, CBO modeled four scenarios in which enlisted end strength varies. In its modeling, CBO assumed that the number of officers would equal the number proposed in the FYDP, or 19,400 each year for five years. As of September 30, 2005, the number of officers was 18,900; and the number of enlisted personnel, 161,100.

The characteristics of the scenarios are as follows:

- **Scenario 1, CBO's base case:** accessions of 32,700 (the 2006 goal) and continuation rates at the levels that

existed from September 2004 through September 2005, which were 82.7 percent overall. The Marine Corps's accession goal was revised downward slightly from 32,880 in October 2005 to 32,700 by December 2005). That revised goal is just 3 percent higher than the average attained from 2000 through 2004. Continuation rates in 2005 were at their highest levels since 1996, although the variation over the period was relatively small (the peak in 2005 was just 2.3 percentage points higher than the trough of 80.4 percent overall experienced in 1999).¹¹ This scenario might be realistic if the recruiting or retention environment weakened. In that case, the Marine Corps might be able to alleviate any difficulties by offering additional incentives.

- **Scenario 2:** accessions and continuation rates representative of pre-September 11, 2001, levels (set at 2001 levels). The Marine Corps had 31,400 accessions and had an overall continuation rate of 81.7 percent for that year. The 2001 accession level was somewhat lower than the average for the 1997-2001 period. The continuation rates in the scenario are on average about 0.6 percentage points higher than the

11. By contrast, continuation rates for the active Army ranged between 81.9 percent and 86.7 percent for the same period.

Table 2-7.**The Marine Corps Reserve's Attrition Rates**

Fiscal Year	Actual Percentage	Percentage Relative to Ceiling
2000	28.5	94.9
2001	26.4	88.0
2002	26.0	86.5
2003	21.5	71.6
2004	26.3	87.8
2005	22.0	73.3
Memorandum:		
Attrition Ceiling	30.0	n.a.

Source: Congressional Budget Office based on data from the Department of Defense, Defense Manpower Data Center.

Note: n.a. = not applicable.

rates attained between 1997 and 2001 and reflect some of the improvements (in basic pay and allowances) that the Congress authorized and provided appropriations for beginning in 2000. Both accessions and continuation rates were lower in 2001 than those experienced in 2005, by 1,500 and 1 percentage point, respectively. Consequently, the scenario is more pessimistic than the base case.

- **Scenario 3:** accessions at the 2006 goal; continuation rates at the 2001 levels. This case illustrates the effect that a decline in retention of about 1 percentage point—to pre-September 11, 2001, levels—and no corresponding increase in accession levels would have on end strength. Because soldiers' continuation behavior is assumed to worsen from the 2005 levels, this scenario is more pessimistic than the base case.
- **Scenario 4:** accessions totaling 31,700 per year; continuation rates at the 2005 levels. This case assumes that, each year, the Marine Corps recruits 1,000 fewer individuals than the 2006 goal. CBO chose this case to illustrate the level of accessions necessary to keep end strength stable and within the authorized level if continuation rates remained at the 2005 levels.

In 2005, the average length of service in the Marine Corps was 4.83 years. Because continuation rates have been somewhat higher in recent years, the average length

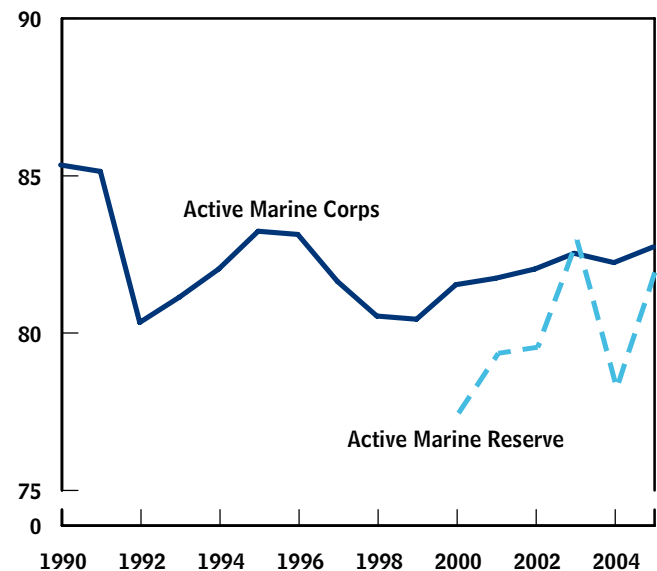
of service in a steady state in the base case would grow slightly, to 5.11 years (see Figure 2-2). A drop to 2001 continuation rates would still increase the average length of service slightly, to 4.95 years.

Under CBO's base-case scenario—in which the Marine Corps attains its 2006 accession goal and continuation rates stay constant—its end strength would grow from 180,000 personnel in 2005 to the discretionary authorized end strength of 184,000 by 2010 (see Figure 2-3 on page 50).

In the second scenario—with accessions and continuation rates at 2001 levels—the Marine Corps's end strength would drop 3 percent from the 2005 level, to 175,000 soldiers (the level authorized in 2003 and 2004). The force would have 4,000 fewer soldiers than the 2006 authorization and 9,000 fewer than the discretionary maximum.

Figure 2-1.**The Marine Corps's Annual Continuation Rates**

(Percent)

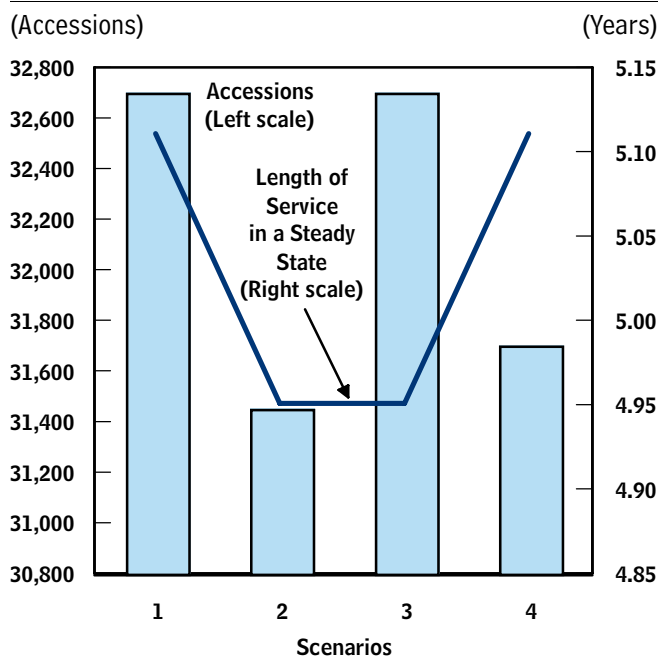


Source: Congressional Budget Office based on data from the Department of Defense, Defense Manpower Data Center.

Note: Data for the Marine Corps Reserve before 2000 are not available.

Figure 2-2.

Annual Accessions and Length of Service in the Active Marine Corps Under Recruiting and Retention Scenarios



Source: Congressional Budget Office.

Note: Scenario 1 = 2006 accession goal (32,700 recruits) each year and continuation rates at the 2005 levels (82.7 percent overall).

Scenario 2 = Accessions at the 2001 level (31,400 recruits) each year and continuation rates at the 2001 levels (which were lower than those in Scenario 1, or 81.7 percent overall).

Scenario 3 = Accessions at the 2006 goal each year and continuation rates at the 2001 levels.

Scenario 4 = Accessions of 31,700 each year and continuation rates at the 2005 levels.

Under the third scenario, if the overall continuation rate declined 1 percentage point from the 2005 level, by 2010 the Marine Corps would have almost 5,000 fewer personnel than in the base case and 1,000 fewer than in 2005. Even with the lower continuation rates, end strength would still be higher than it was early in the decade and would still be at the current authorized level. A decline in continuation rates (albeit smaller than the one in this scenario) may be materializing. As of February 2006, the Marine Corps's overall continuation rate had dropped by 0.7 percentage points.

According to CBO's calculations for the fourth scenario, the Marine Corps could drop its accession levels by 1,000 each year from its 2005 goal and still maintain the size of the force at 180,000 in 2010. As shown in this scenario, each change of 1,000 in annual accessions would accumulate to a change of about 3,500 personnel in end strength by 2010 (compared with end strength in the base case).¹²

Marine Corps Reserve

If the Marine Corps Reserve maintained its continuation rates from the levels in 2005 and attained its 2006 recruiting goal (the lowest this decade), its end strength would be 41,100 personnel by 2010. That level corresponds closely to that outlined in DoD's 2007 Future Years Defense Program. If, however, annual accessions were to fall 500 recruits short of the 2006 goal each year in the future, the size of the force would total about 39,400 personnel.

To derive those results, CBO modeled three scenarios of end strength allowing the accession levels and continuation rates for enlisted personnel to change. CBO assumed that the Marine Corps Reserve would achieve the officer end strength as given in the FYDP, or 4,100 annually over five years. The total numbers of enlisted personnel and officers were 36,500 and 3,400, respectively, as of September 30, 2005.

The scenarios have these characteristics:

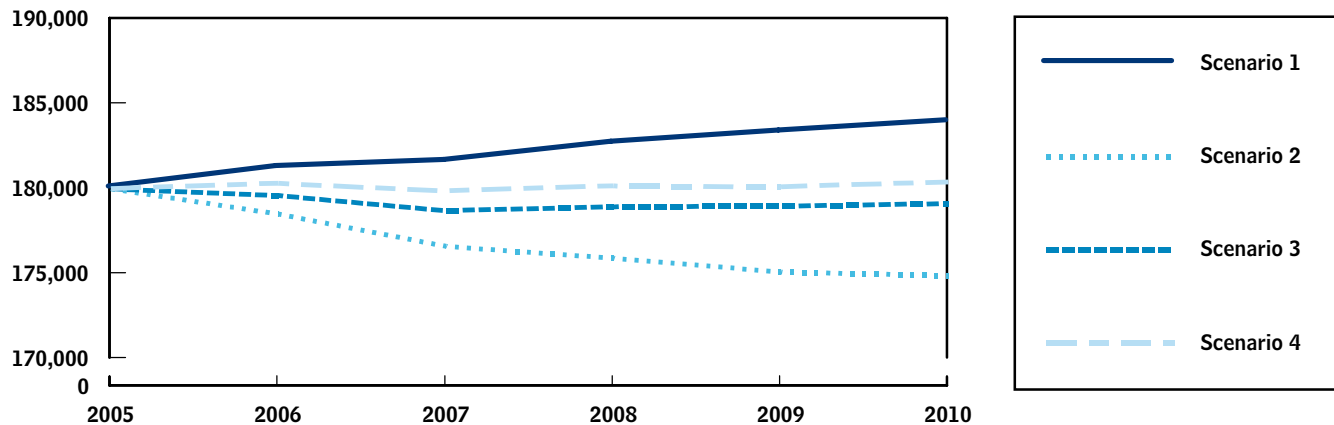
- **Scenario 1, CBO's base case:** accessions of 8,035, the goal for 2006, and continuation rates at the levels that existed from September 2004 through September 2005, which were 82.1 percent overall, one of the highest levels this decade. Only in 2003 was the rate—at 83.0 percent—higher, and earlier, it was at least 2.6 percentage points lower. The accession goal is the lowest in recent history (the average for 1998 through 2005 was 9,200) and is presumably in response to relatively high continuation rates.

12. For example, if accessions rose from 32,000 to 33,000 in 2006 and stayed at that level for four more years, end strength by 2010 would be more than 3,500 higher than it would otherwise have been.

Figure 2-3.

Effects of Recruiting and Retention Scenarios on the Active Marine Corps's End Strength

(Number of personnel)



Source: Congressional Budget Office.

Note: Scenario 1 = 2006 accession goal (32,700 recruits) each year and continuation rates at the 2005 levels (82.7 percent overall).

Scenario 2 = Accessions at the 2001 level (31,400 recruits) each year and continuation rates at the 2001 levels (which were lower than those in Scenario 1, or 81.7 percent overall).

Scenario 3 = Accessions at the 2006 goal each year and continuation rates at the 2001 levels.

Scenario 4 = Accessions of 31,700 each year and continuation rates at the 2005 levels.

■ **Scenario 2:** accession levels at 7,500 per year through 2010; continuation rates at the 2005 levels. This case was modeled to illustrate what might happen to the size of the force if the recruiting environment worsened.

■ **Scenario 3:** accessions similar to those in the base case; continuation rates reverting to levels last seen in 2000 (the lowest levels of the decade and 4.6 percentage points lower than the 2005 levels).

In 2005, the average length of service equaled 4.8 years. Because the Marine Corps Reserve recruits non-prior-service individuals relatively more intensively than the other reserve components do (in a manner more like the active Marine Corps's approach), its average length of service is closer to that in the active Marine Corps. In the base case, the Marine Corps Reserve's average length of service would increase to 5.1 years (see Figure 2-4). And even with lower continuation rates, as in Scenario 3, it would be 4.6 years.

Under CBO's base-case scenario, the Marine Corps Reserve would increase enlisted end strength by 500 per-

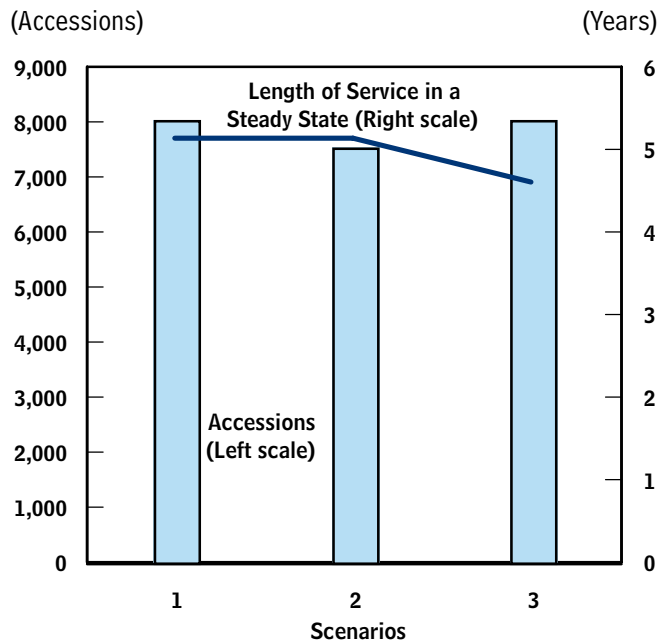
sonnel, or 1.3 percent, above the 2005 level. The component is assumed to increase the number of officers from 3,400 to the FYDP target of 4,100 in all five years. In combination, total personnel would increase by 1,200, or 2.9 percent, to 41,100, and exceed authorized end strength by 1,500 individuals, or almost 4 percent (see Figure 2-5 on page 52).

Under Scenario 2, with about 500 fewer accessions each year, enlisted end strength would drop from the 2005 level by 1,300 soldiers, or 3.4 percent, to 35,300 by 2010. Total end strength would decrease by 600 personnel, or 1.4 percent, to 39,400, just under the authorized level.

Under Scenario 3, the drop in continuation rates would translate, between 2005 and 2010, into a decline in enlisted end strength of more than 4,000 personnel and in total end strength of 3,600. While that decline may appear relatively small in absolute numbers, end strength in 2010 would be 36,300 personnel, or just 91.8 percent of the authorized level.

Figure 2-4.

Annual Accessions and Length of Service in the Marine Corps Reserves Under Recruiting and Retention Scenarios



Source: Congressional Budget Office.

Note: Scenario 1 = 2006 accession goal (8,035 recruits) each year and continuation rates at the 2005 levels (82.1 percent overall).

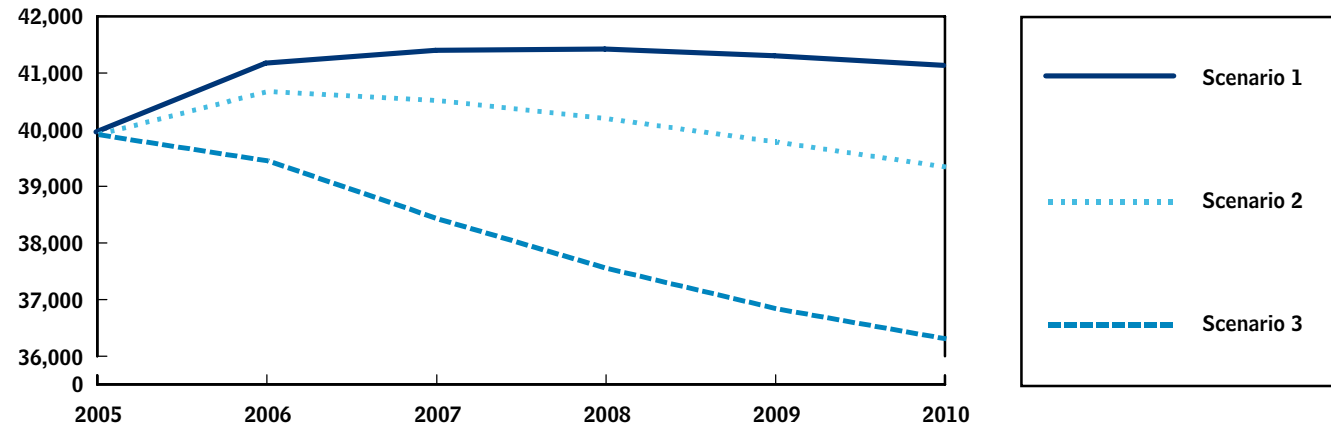
Scenario 2 = Accessions of 7,500 recruits and continuation rates at the 2005 levels.

Scenario 3 = Accessions at the 2006 goal each year and continuation rates (at 79.4 percent overall) similar to the 2000 levels (which were substantially lower than those in 2005).

Figure 2-5.

Effects of Recruiting and Retention Scenarios on the Marine Corps Reserve's End Strength

(Number of personnel)



Source: Congressional Budget Office.

Note: Scenario 1 = 2006 accession goal (8,035 recruits) each year and continuation rates at the 2005 levels (82.1 percent overall).

Scenario 2 = Accessions of 7,500 recruits and continuation rates at the 2005 levels.

Scenario 3 = Accessions at the 2006 goal each year and continuation rates (at 79.4 percent overall) similar to the 2000 levels (which were substantially lower than those in 2005).

Recruiting, Retention, and End Strength in the Navy

Unlike the Army, the Navy and Air Force are undergoing planned reductions in end strength. As they proceed, they may have to encourage some personnel to separate from the service while at the same time providing incentives to retain other needed personnel.

Authorized end strength for the active Navy was largely stable from 2000 to 2004—the level was 372,000 personnel in 2000 and 373,800 in 2004—but then dropped to 352,700 by 2006, or by more than 21,000 personnel. From 2000 to 2003, actual end strength was greater than the authorized levels; end strength declined to the authorized level in 2004.¹ Planned reductions in line with declines in authorized end strength began in 2004. Between 2003 and 2005, the number of enlisted personnel decreased by over 17,200 personnel, or 5 percent, and the number of officers dropped by almost 2,200, or 4 percent (see Table 3-1). According to the Navy, reasons for the reductions included the decommissioning of older manpower-intensive ships and technology-related efficiencies in newer ships.²

The situation could put the active Navy in a better position than the active Army to meet its recruiting goals because the Navy will require fewer accessions as it downsizes the force. However, the active Navy faces the challenge of managing the reductions in a way that retains the skilled personnel it needs while encouraging others to leave voluntarily, without creating morale problems that could harm recruiting and retention in the future. According to Navy officials, the transition will be managed by policies such as shifting personnel from overmanned to undermanned occupations and by encouraging transfers of personnel from the active Navy to the reserve component or to other services (through, for example, the Army's Blue-to-Green program).

Authorized end strength for the Navy Reserve has been declining for most of this decade. The Navy Reserve's authorized end strength decreased by between 2 percent and 3 percent per year between 2000 and 2005 and averaged 87,000 personnel during that period. Reductions in actual end strength were concentrated in 2004 and 2005, when the Navy Reserve dropped by 6 percent to 7 percent, or about 6,000 personnel, in each of those years. Lower recruiting goals in those years as well as difficulties meeting those goals helped cause end strength to fall 3,300 and 6,900 sailors below authorized levels in 2004 and 2005, respectively.

The Future Years Defense Program outlines plans to reduce the size of the active Navy force over the next several years. Starting from an end strength of 362,900 for 2005, the Navy is expected to decline by almost 10 percent by 2008, to a force of 331,200, and then to stabilize at about that level (see Table 3-2). Over the period from 2005 through 2011, the enlisted force is expected to

1. The Navy implemented a stop-loss program in September 2001 for some specialties. In August 2002, the program was terminated, and affected personnel were permitted to leave the service through December 2002. However, with the onset of the war, the stop-loss policy was imposed on certain health professionals in April 2003. The policy was rescinded in May 2003, and a total of about 2,600 sailors who reached the end of their military service obligation (including members of both the active Navy and the Navy Reserve) were permitted to leave the Navy from June through December 2003.
2. Statement of Vice Admiral Gerald L. Hoewing before the Military Personnel Subcommittee of the House Armed Services Committee, March 16, 2005.

Table 3-1.**The Navy's End Strength**

Fiscal Year	Active Navy				Navy Reserve			
	Authorized	Actual			Authorized	Actual		
		Enlisted Personnel	Officers	Total ^a		Enlisted Personnel	Officers	Total
2000	372,037	315,471	53,550	373,193	90,288	67,999	18,934	86,933
2001	372,642	319,601	53,908	377,810	88,900	68,872	19,041	87,913
2002	376,000	324,351	54,476	383,108	87,000	69,692	18,266	87,958
2003	375,700	322,915	55,022	382,235	87,800	69,370	18,786	88,156
2004	373,800	314,681	54,208	373,197	85,900	64,359	18,199	82,558
2005	365,900	305,735	52,826	362,941	83,400	59,471	16,995	76,466
2006	352,700	n.a.	n.a.	n.a.	73,100	n.a.	n.a.	n.a.

Source: Congressional Budget Office based on, for the active Navy, the National Defense Authorization Act (various years) and Department of Defense, Directorate for Information Operations and Reports, Statistical and Analysis Division, "Military Personnel Statistics," available at <http://siadapp.dior.whs.mil/personnel/MILITARY/Miltop.htm>; and, for the Navy Reserve, the National Defense Authorization Act (various years) and Department of Defense, Defense Manpower Data Center, *Official Guard and Reserve Manpower Strengths and Statistics* (various years).

Note: n.a. = not available.

a. The active Navy's total end strength each year includes about 4,000 midshipmen not otherwise classified.

decline at a greater rate, 9.3 percent, than the officer force (including midshipmen), at 8.5 percent. The FYDP also shows cuts in the Navy Reserve of almost 8,000 reservists, or about 8 percent, by 2008 (see Table 3-3 on page 56). As of July 31, 2006, the active Navy's end strength was 351,591 personnel; the Navy Reserve's, 70,051 (more than 3,000 sailors, or 4.2 percent, below authorized end strength).

Recruiting Trends

Commensurate with the active Navy's overall reduction in end strength and higher retention, its accessions have been decreasing.

Quantity of Recruits

Although the active Navy began the decade with 55,000 accessions, by 2005 the number of new sailors was about 38,000—a decrease of over 30 percent (see Table 3-4 on page 57). The Navy successfully recruited 100 percent of its decreasing recruiting requirement each year from 2000 through 2005. That trend continued into 2006, as the Navy attained 100 percent of its cumulative objective through August 2006 (about 32,600 accessions). Notwithstanding that situation, the Navy will probably need

to employ incentives to help it recruit and retain high-quality personnel.

As the Navy Reserve executes planned cuts in end strength, the goals for accessions and the number realized have been declining. The goals have dropped from over 18,000 in 2000 to 11,180 in 2006 (although 2004 did have a lower goal of about 10,000).³ The number of recruits entering the Navy Reserve began to decline in 2003, at a rate of over 10 percent per year (see Table 3-4).

In 2005, the Navy Reserve fell short of its goal of 11,500 by about 1,700 recruits, or 15 percent. Shortfalls continued in 2006, as the component had 8,811 accessions, or 86 percent, of its cumulative objective of about 10,276 as of August 2006. Several factors might have contributed to the shortfalls. Although fewer Navy reservists have

3. The reserve components typically fill their requirements for Active Guard/Reserve (AGR) personnel, also termed full-time support (FTS) personnel, with existing reserve personnel. However, the Navy Reserve also maintains separate accession goals for those personnel. To match DoD's reporting elsewhere, the Congressional Budget Office reports only the accessions and goals for drilling reservists (those who train on weekends) and not those for AGR or FTS personnel.

Table 3-2.

Plans for the Active Navy's End Strength, as Specified in the Future Years Defense Program

	Actual 2005	2006	2007	2008	2009	2010	2011
Enlisted Personnel	305,735	296,475	280,862	277,272	277,172	277,373	277,363
Officers	52,826	51,520	50,057	49,910	49,910	49,909	49,919
Cadets	4,380	4,100	4,000	4,000	4,000	4,000	4,000
Total	362,941	352,095	334,919	331,182	331,082	331,282	331,282

Source: Congressional Budget Office based on data from the Department of Defense, Future Years Defense Program, and Department of Defense, Directorate for Information Operations and Reports, Statistical and Analysis Division, "Military Personnel Statistics," available at <http://siadapp.dior.whs.mil/personnel/MILITARY/Miltop.htm>.

been called up for the current missions than their Army counterparts, call-ups have nonetheless been more frequent than in the past. Additionally, according to some Navy recruiters, individuals with technical training (one of its targeted groups for recruiting) have had relatively attractive civilian opportunities. Finally, the Navy consolidated its reserve and active recruiting commands in recent years, and effects are apparently still being felt, as recruiters continue to learn new areas of responsibility.⁴

However, the Navy may have some new opportunities to attract individuals into the Reserve. The drawdown in the active Navy may provide a recruiting opportunity for the Navy Reserve over the next few years, as additional experienced personnel become available for reserve service. For instance, the Reserve has created the Recruiting Selective Conversion Reenlistment-Reserve, or RESCORE-R, program. In it, selected military personnel in overmanned occupations who would otherwise be ineligible to enter the Reserve may do so if they undertake training in a critical skill. Additionally, sailors who entered the active Navy under the National Call to Service (NCS)—a Congressionally mandated program—are beginning to transition to the Reserve. Sailors in that program serve a shortened enlistment of 15 months of active duty following their initial training and then shift to the reserve component. About 1,700 such sailors will enter the Navy Reserve in 2007, representing an additional boost to the component if they would not have served in the Reserve in the absence of the program.

4. For instance, reserve recruiters are now responsible for recruiting active-duty personnel and vice versa.

Quality of Recruits

The quality of the active Navy's recruits has been increasing steadily and is above the Department of Defense's standards for scores on the Armed Forces Qualification Test and for the percentage of high school graduates in 2005 (see Table 3-5 on page 58). The percentage of Navy recruits who were high school graduates increased from 90 percent in 2000 to 97 percent in 2005, while the percentage in AFQT categories I to IIIA increased from 64 percent to 71 percent in the same period. As of August 2006, 95 percent of the recruits were high school graduates, and 75 percent scored at or above the median in the AFQT.

The Navy Reserve, by contrast, appears to have experienced difficulties maintaining the percentage of non-prior-service recruits who have high school diplomas.⁵ That percentage has fallen below DoD's 90 percent benchmark every year this decade except for 2000 (see Table 3-5 on page 58). Indeed, in 2005, only 69 percent of the Navy Reserve's recruits were high school graduates, the lowest proportion among all 10 military components.⁶ The Navy Reserve was able to meet and exceed DoD's benchmark specifying that 60 percent of recruits have AFQT scores at or above the median between 2000 and 2004 but fell to below that level (to 59 percent) in 2005. As discussed above, the Navy Reserve also missed

5. DoD is auditing the Navy Reserve's data prior to 2005 on the quality of recruits.

6. Eighty-seven percent of the Air Force Reserve's recruits—the component with the next lowest proportion in 2005—had earned high school diplomas.

Table 3-3.

Plans for the Navy Reserve's End Strength, as Specified in the Future Years Defense Program

	Actual 2005	2006	2007	2008	2009	2010	2011
Enlisted Personnel	59,471	54,927	53,592	53,012	52,663	52,788	52,760
Officers	16,995	16,317	15,778	15,558	15,407	15,282	15,310
Total	76,466	71,244	69,370	68,570	68,070	68,070	68,070

Source: Congressional Budget Office based on data from the Department of Defense, Future Years Defense Program, and Department of Defense, Defense Manpower Data Center, *Official Guard and Reserve Manpower Strengths and Statistics: Fiscal Year 2005 Summary*.

its accession goal that year. For 2006, as of August, there appears to be a turnaround, as 85 percent of recruits were high school graduates, and 72 percent were scoring at or above the median in the AFQT.

Recruiting Resources

Incentive packages contained in existing statutory authorities are available for the Navy for shaping its force, particularly to recruit and retain personnel with specific skills. The active Navy's expenditures on enlistment bonuses were \$74 million in 2000, peaked at \$100 million in 2002, and thereafter declined to \$81 million in 2005 (see Table 3-6 on page 59). The Navy's budget includes \$81 million and \$74 million for enlistment bonuses for 2006 and 2007, respectively.

The planned reductions in the active Navy's accession goals are also reflected in decreases in some recruiting resources (see Table 3-7 on page 60). For instance, the average number of Navy recruiters decreased from about 4,900 in 2000 to about 3,400 in 2005. As of August 2006, the number remained at approximately the same level that it was last year. Recruiting support expenditures averaged \$72 million between 2000 and 2005. Advertising expenditures fluctuated during that period. From 2004 to 2005, they jumped from \$78 million to \$112 million (an increase of over 40 percent), but the figure for 2005 incorporates spending by the Navy Reserve because the active and reserve recruiting commands merged. Although the data on the previous years' advertising expenditures by the Navy Reserve are not precise, that component may have spent up to \$8 million per year on advertising. Under that assumption, the Navy's total

spending on advertising increased roughly 30 percent between 2004 and 2005.

Over the 2000-2005 period, spending by the Navy Reserve on enlistment bonuses fluctuated between \$4.2 million and \$5.0 million, except for 2002, in which the component spent \$6.2 million on enlistment bonuses (including affiliation bonuses) (see Table 3-6 on page 59). In 2005, the year it missed its recruiting goal by 15 percent, the Navy Reserve spent a total of \$4.5 million, an increase of less than 6 percent from the previous year. While expenditures on enlistment bonuses for recruits without prior service increased by \$1 million (or 42 percent), the Navy Reserve's spending on other enlistment bonuses decreased a total of \$700,000. That shift in spending is explained in part by the Navy Reserve's higher reliance on non-prior-service recruits. To encourage individuals to enlist, the Navy Reserve budgeted \$10.4 million for 2006 and \$9.5 million for 2007 (more than double the amount it spent in 2005) on enlistment bonuses, anticipating that most of the increase would be spent on non-prior-service individuals and RESCORE participants.

The number of full-time Navy Reserve recruiters and recruiting support personnel was stable between 2000 and 2005, averaging about 1,100 (see Table 3-7 on page 60). However, since the two Navy components began merging their recruiting commands in 2003, both active and reserve service members recruit for both components. Therefore, even though the Navy has fewer recruiters in total, it may be devoting additional resources to recruiting reservists.

Table 3-4.**The Navy's Total Accessions of Enlisted Personnel**

Fiscal Year	Active Navy				Navy Reserve		
	Initial Objective	Final Objective	Actual Accessions	Percentage of Objective	Objective	Actual Accessions	Percentage of Objective
2000	57,370	55,000	55,147	100	18,410	14,911	81
2001	56,348	53,520	53,690	100	15,250	15,344	101
2002	53,000	46,150	46,155	100	15,000	15,355	102
2003	46,137	41,065	41,076	100	11,893	12,772	107
2004	39,672	39,834	39,677	100	10,101	11,246	111
2005	41,556	37,635	37,703	100	11,491	9,788	85
2006	37,456	n.a.	n.a.	n.a.	11,180	n.a.	n.a.
Average, 2000–2004	50,505	47,114	47,149	n.a.	14,131	13,926	n.a.

Source: Congressional Budget Office based on, for the active Navy, data from the Department of Defense, Directorate for Accession Policy; and, for the Navy Reserve, data from the Department of Defense, Office of Reserve Affairs.

Note: n.a. = not available or not applicable.

Retention Trends

The Navy states its retention goals in terms of the percentage of eligible sailors in various experience levels who choose to reenlist. Although the active Navy's plan to reduce end strength may imply the ability to be more selective in retaining high-quality personnel, the component has not always met its retention goals in the past few years (see Table 3-8 on page 61). The Navy's retention improved from 2001 to 2003 such that the component met its goals for personnel in their initial enlistment (who had up to six years of service), termed zone A, and for personnel in midcareer (who had at least six years of service but less than 10 years), termed zone B. In 2003, it also met its goal for careerists (who had 10 to 14 years of service), termed zone C. In 2004, the Navy met retention goals for zones B and C but slightly missed the goal for zone A. In 2005, the Navy did not meet the retention goal for any of the experience categories, with the biggest shortfall being almost 6 percentage points for zone B.

The Navy Reserve manages its force largely by monitoring attrition, which averaged 28 percent between 2000 and 2005. Attrition remained below the 36 percent ceiling throughout that entire period (see Table 3-9 on page 62).

Continuation rates (which provide an alternative way of comparing the combined retention of and attrition by service members over time) for the active Navy hovered around 86 percent in 2004 and 2005 (see Figure 3-1 on page 62). But during the past 15 years, there has been some fluctuation. In the early 1990s (with the military-wide drawdown), the rates declined, and later in that decade, they reversed. Early in the current decade, rising levels of expenditures on Selective Reenlistment Bonuses probably helped continuation rates increase substantially (from 84 percent overall in 1999 to a peak of 89 percent in 2002). After peaking in 2002 and 2003, they returned to pre-September 11, 2001, levels. Through February 2006, the overall continuation rate for the active Navy for the preceding 12 months was 86 percent, indicating no significant departure from the trend.

The active Navy's expenditures on SRBs increased from \$232 million in 2000 to \$344 million in 2005 (see Table 3-6 on page 59). Budgeted amounts for 2006 and 2007 are \$342 million and \$340 million, respectively. Stable SRB expenditures in the context of falling end strength may reflect force-shaping initiatives in which sailors in undermanned occupations are encouraged to stay in the Navy.

Table 3-5.**The Quality of the Navy's Recruits Without Prior Service**

Fiscal Year	Active Navy		Navy Reserve ^a	
	High School Graduate	AFQT Categories I-III A	High School Graduate	AFQT Categories I-III A
2000	90	64	93	76
2001	90	63	89	73
2002	92	65	86	69
2003	94	66	84	70
2004	96	70	78	71
2005	97	71	69	59

Source: Congressional Budget Office based on, for the active Navy, data from the Department of Defense, Directorate for Accession Policy (partly available at www.dod.mil/prhome/docs/recqual04.pdf); and, for the Navy Reserve, data from the Department of Defense, Office of Reserve Affairs.

Notes: AFQT = Armed Forces Qualification Test.

The Department of Defense divides the scores on the AFQT into five ranges, or categories. Scores at or above the 50th percentile fall into categories I through IIIA.

a. Data for the Navy Reserve prior to 2005 are being audited by the Department of Defense and are subject to change.

In addition to SRBs, the Navy uses other tools to help shape its force as it downsizes. Such tools include the Assignment Incentive Pay (AIP) and the Perform to Serve (PTS) programs. Those programs are designed to steer sailors to particular jobs and skill areas needed by the Navy. The AIP program offers monetary incentives to encourage sailors to volunteer for hard-to-fill locations and jobs.⁷ The PTS program screens first-term sailors for reenlistment. It offers some sailors in overmanned occupations who might otherwise be separated from the service a chance to retrain and reenlist in undermanned occupations.

From 2000 to 2005, the pattern for the Navy Reserve's continuation rates mimicked that for the active Navy. The rates peaked in 2002, at 80.9 percent overall, and declined thereafter (see Figure 3-1 on page 62). However, the continuation rates in the Navy Reserve were between 6 and 8 percentage points lower than the rates for the active Navy in that 2000-2005 period. In comparison to the other reserve components, the Navy Reserve had the

lowest levels of continuation in 2005, at 78.8 percent overall, and has been among the lowest performers for the past several years. The low continuation rates occurred despite an increase in reenlistment bonuses from \$3.2 million in 2004 to \$4.9 million in 2005 (see Table 3-6). Moreover, the situation may be worsening, as the more-recent 12-month continuation rate through February 2006 showed a further decrease, to 77.5 percent. Those continuation rates for the Navy Reserve are more than 2 percentage points lower than those for the Army Reserve (the reserve component experiencing the next lowest continuation levels). To mitigate the problems, the Navy Reserve budgeted large increases for reenlistment bonuses for 2006 and 2007, with expenditures reaching \$7.0 million and \$7.7 million, respectively.

Implications of Recruiting and Retention Trends for End Strength

As with the other military components, the Congressional Budget Office examined how the Navy could meet its planned end strength. CBO modeled several scenarios for both the active Navy and the Navy Reserve, taking September 30, 2005, as its starting point and projecting end strength forward from 2006 through 2010.

7. Sailors may "bid" for assignments offering AIP, stating an amount of pay that would induce them to accept the assignment. The Navy then fills the vacancy on the basis of the bids, the applying sailors' qualifications, and other criteria.

Table 3-6.**The Navy's Spending on Reenlistment and Enlistment Bonuses**

(Millions of current dollars)

Fiscal Year	Active Navy		Navy Reserve	
	Selective Reenlistment Bonuses	Enlistment Bonuses	Selective Reenlistment Incentive Program	Enlistment Bonuses
2000	232.9	73.8	2.3	4.2
2001	335.8	90.8	3.0	4.8
2002	320.4	100.0	4.2	6.2
2003	339.3	80.1	3.7	4.9
2004	310.7	83.3	3.2	4.3
2005	344.2	80.8	4.9	4.5

Source: Congressional Budget Office based on, for the active Navy, data from the Department of Defense, Directorate for Accession Policy and Directorate for Officer and Enlisted Personnel Management; and, for the Navy Reserve, data from the Department of Defense's personnel budget books, available at www.dod.mil/comptroller/defbudget/fy2007/index.html.

Active Navy

Even if accessions dropped slightly below their current historical lows (by 500) for each year through 2010, the Navy would be able to sustain its force at its planned (lower) levels. However, a decrease in continuation rates of 1 percentage point combined with accessions of 37,500 (the 2006 goal) would decrease end strength substantially below the planned levels. Lower continuation rates could be used as the primary lever to reduce end strength to planned levels, but a drop of 2 percentage points, for instance, would require about 44,000 accessions per year (higher than the active Navy's objective for 2006 but still lower than the more than 50,000 that occurred each year prior to 2002).

In the four scenarios modeled, CBO assumes the decline in officer end strength (including midshipmen) that is planned in the FYDP, from 57,200 in 2005 to 53,900 in 2011. Otherwise, the accession levels and continuation rates in the scenarios are as follows:

- **Scenario 1, CBO's base case:** accessions of 37,500, the 2006 goal, for each year through 2010 and continuation rates for all experience levels remaining at the 2005 levels, 86.2 percent overall. That level for recruiting would be the lowest this decade and a historic low—even in the downsizing efforts of the 1990s, accessions did not fall below 48,000. The continuation rates, by contrast, would be relatively high—slightly higher than the 2001 rates but 2 percentage

points higher than the simple average from 1997 through 2000. (Recruiting and retention both were hampered by a booming national economy in the late 1990s.)

- **Scenario 2:** varying accession levels, but continuation rates at the 2005 levels. In this scenario, CBO assumes 36,500 accessions for 2006 (which is lower than the Navy's goal), dropping to 27,000 in 2007 (the year that the Navy plans to decrease the size of the force by 17,000 personnel) and then rising to 40,500 in 2009. Accessions stabilize thereafter at levels between 37,700 and 38,500. This case illustrates the number of recruits necessary to decrease the size of the Navy to its end-strength targets, assuming that it maintains continuation rates at their 2005 levels.
- **Scenario 3:** accessions of 36,500 per year; continuation rates at the 2005 levels. This case assumes that the Navy recruits 1,000 fewer individuals than the 2006 goal.
- **Scenario 4:** accessions totaling 37,500 each year; continuation rates at all experience levels 1 percentage point lower than the 2005 levels. According to DoD's data, the 12-month continuation rate as of February 2006 had dropped slightly, to 86.0 percent.

The average length of service for enlisted personnel in the Navy was 7.34 years at the end of 2005. Under the base

Table 3-7.**The Navy's Recruiting Resources**

Fiscal Year	Active Navy			Navy Reserve ^a		
	Recruiters ^b	Recruiter Support (Millions of dollars)	Advertising (Millions of dollars)	Recruiters ^b	Recruiter Support (Millions of dollars)	Advertising (Millions of dollars)
2000	4,863	70.9	63.7	1,014	n.a.	n.a.
2001	4,934	71.6	71.5	1,104	n.a.	n.a.
2002	4,714	68.1	78.1	1,162	n.a.	n.a.
2003	4,617	75.4	90.9	1,120	n.a.	n.a.
2004	3,767	67.1	78.4	1,122	n.a.	n.a.
2005 ^c	3,365	75.9	112.3	1,124	n.a.	n.a.

Source: Congressional Budget Office based on, for the active Navy, data from the Department of Defense, Directorate for Accession Policy; and, for the Navy Reserve, data from the Department of Defense, Office of Reserve Affairs, and selected Department of Defense budget books and related justification materials.

Note: n.a. = not available.

- For 2000 to 2004, CBO was unable to separate the expenditures for recruiter support and advertising from other budgetary items in the operation and maintenance accounts.
- For the active Navy, statistics reflect the average number of recruiters for each year. For the Navy Reserve, they reflect the number of full-time reservists filling positions as recruiters or recruiter support personnel as of the end of the year.
- The active Navy and the Navy Reserve had a consolidated recruiting command. Resources for both components are reflected in the statistics for the active Navy.

case, even with accession levels declining, the average length of service in a steady state would be 6.82 years (see Figure 3-2 on page 63). The lower continuation rates associated with Scenario 4 would push the average length of service lower, to 6.41 years.

End strength under CBO's base case—which entails low levels of recruiting but relatively high continuation rates—would drop to 333,800 personnel by 2010, a reduction from 2005 of about 29,200: 25,900 fewer enlisted personnel and an assumed reduction of 3,300 officers (see Figure 3-3 on page 64). A force of that number would be just 1 percent higher than the planned end strength of 331,300. Because planned end strength drops sharply in 2007 compared with the slow decline in CBO's model, end strength that year would be over 10,000 more than planned, and in 2008 it would be almost 9,000 more than planned.

Under the second scenario, which varies accessions only, the Navy would reach yearly planned end-strength targets. Its end strength would drop by 31,700 personnel between 2005 and 2010, yielding a force of 331,300. The

Navy would probably not choose to decrease its force in this way, however. By relying solely on lower accession levels, the Navy would create gaps in the experience profile of the future force that could affect readiness.

In the third scenario, accessions drop below the 2006 goal by 1,000 per year. Lowering the number of accessions by that amount each year would translate into a further drop in end strength of about 3,600 personnel by 2010 compared with the result in the base case. At 330,100 personnel, the Navy would differ from its end-strength target by just 1,000 personnel by 2010.

Under the final scenario—which includes no change in accessions from the 2006 goal but a decline in retention—the Navy would have 37,900 fewer sailors and 41,200 fewer personnel in total by 2010. The enlisted force would have 267,800 sailors, and the total force, 321,700. As shown by this scenario, each 1 percentage-point decline in continuation rates would accumulate to a drop in end strength of over 12,000 sailors from what it would have been. This is the only scenario of the four in

Table 3-8.**The Active Navy's Retention of Enlisted Personnel**

(Percent)

Fiscal Year	Initial Enlistments			Midcareer Personnel			Careerists		
	Actual	Goal	Attainment of Goal	Actual	Goal	Attainment of Goal	Actual	Goal	Attainment of Goal
2000	47.1			62.0			82.9		
2001	56.9	57.0	No	68.2	69.0	No	85.0	89.0	No
2002	58.7	56.0	Yes	74.5	73.0	Yes	87.4	90.0	No
2003	61.8	56.0	Yes	76.7	73.0	Yes	87.9	86.0	Yes
2004	54.1	56.0	No	70.2	70.0	Yes	86.9	85.0	Yes
2005	51.8	53.0	No	63.2	69.0	No	84.8	85.0	No

Source: Congressional Budget Office based on data from the Department of Defense, Directorate for Officer and Enlisted Personnel Management, and data from the Navy Personnel Command, Center for Career Development.

Note: Initial enlistments (termed zone A) covers sailors with less than six years of service. Midcareer personnel (zone B) have at least six years of service but less than 10. Careerists (zone C) have 10 to 14 years of service.

which end strength by 2010 would be substantially lower than planned.

Lowering retention could be the Navy's primary means of reducing the force, although the average length of service and, consequently, the productivity of the force would decline. If the Navy chose that method, it could adjust its SRB levels, make further use of the Perform to Serve program, and adopt other policies. If the Navy dropped continuation rates 2 percentage points further than the 2005 levels starting in 2007 and had accessions of 44,000 (one of the lowest levels in the last 20 years), the Navy could still attain its 2010 end-strength target.

Navy Reserve

As outlined in the FYDP, the Navy Reserve plans to reduce its force by 8,400 personnel (1,700 officers and 6,700 sailors), reaching an end strength of 68,100 by 2010. The Navy Reserve would not be able to meet its (lower) end-strength goal for 2010, CBO estimates, if it could both increase the number of accessions to its 2006 goal and maintain continuation rates at the 2005 levels. The Navy Reserve's force size would decrease from 76,500 personnel in 2005 to 65,900 in 2010—which would be 2,100, or 3.1 percent, below the planned number. If accessions were to reach the (lower) levels attained in 2005, end strength in 2010 would be still lower, 62,300 personnel—a shortfall of 8.5 percent. Reaching the planned end strength (without changes in continua-

tion rates) would require accessions of up to 13,000 per year.

In the four scenarios that CBO modeled, it assumes the decline in officer end strength that is planned in the FYDP, from 17,000 in 2005 to 15,300 in 2010. Otherwise, the accession levels and continuation rates in the scenarios are as follows:

- **Scenario 1, CBO's base case:** accessions totaling 11,180 each year (the 2006 goal); continuation rates at the 2005 levels, 78.3 percent overall.⁸ That number of accessions would be one of the lowest goals this decade but substantially more than the number the Navy Reserve had in 2005. The recruiting difficulties suggest that achieving a higher accession goal consistently may be difficult. But the Navy Reserve may be able to do so if the recruiting environment improves or if the added recruiting resources and incentives are sufficient. The continuation rates assumed in this sce-

8. To match DoD's reporting, any counts of the Navy's accessions that CBO reports do not include individuals recruited for full-time Active Guard or Reserve, or full-time support, positions. According to DoD's Defense Manpower Data Center, such accessions totaled an additional 1,230 individuals in 2005. For all four scenarios, CBO assumed that the Navy Reserve would recruit that same number of personnel in Active Guard or Reserve positions each year in the future.

nario would also extend the lowest rate that the component has experienced this decade.

- **Scenario 2:** accessions of 9,788 (the same level as the Navy Reserve attained in 2005); continuation rates at the 2005 levels. The Navy Reserve missed its accession goal in 2005 by 15 percent, and the number of recruits was the lowest of the decade. This case is more pessimistic than the base case and assumes that either the recruiting environment deteriorates or that the added bonuses are not sufficient.
- **Scenario 3:** accessions totaling 11,180 each year; continuation rates for all experience groups falling 1 percentage point from the 2005 levels, to an overall rate of 77.3 percent. For the 12 months that ended in February 2006, the overall rate had deteriorated to 77.5 percent, close to the assumed level.
- **Scenario 4:** accessions of 8,750 for 2006, rising to 13,000 by 2010; continuation rates at the 2005 levels.

The average length of service in the Navy Reserve in 2005 was 11.1 years. Under the scenarios that assume an extension of the 2005 continuation rates, the average length of service would decline to 9.1 years in a steady state (see Figure 3-4 on page 65). In Scenario 3, which models a decline in continuation rates, the force would continue to lose experience, and the average experience level of the force would decline further.

Table 3-9.

The Navy Reserve's Attrition Rates

Fiscal Year	Actual Percentage	Percentage Relative to Ceiling
2000	27.1	75.3
2001	27.7	76.9
2002	26.5	73.6
2003	26.5	73.7
2004	28.3	78.5
2005	31.2	86.8
Memorandum:		
Attrition Ceiling	36.0	n.a.

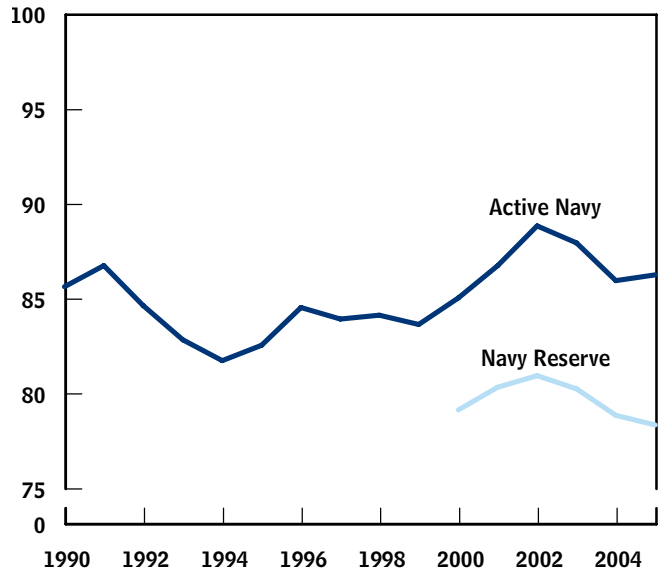
Source: Congressional Budget Office based on data from the Department of Defense, Defense Manpower Data Center.

Note: n.a. = not applicable.

Figure 3-1.

The Navy's Annual Continuation Rates

(Percent)



Source: Congressional Budget Office based on data from the Department of Defense, Defense Manpower Data Center.

Note: Data on the Navy Reserve's continuation rates before 2000 are not available.

In the base case, the Reserve would exceed its planned end strength in 2006 but fall below the planned level in 2007. By 2010, enlisted end strength would fall by 8,800 personnel (or 14.8 percent), to 50,700; total end strength would fall by 10,500 (or 13.8 percent), to 65,900 (see Figure 3-5 on page 66). That level of total end strength would be 2,100 (or 3.1 percent) lower than the planned level.

As shown by the second scenario, every drop in accessions of 1,000 would accumulate to a decrease in enlisted end strength of 2,600 by 2010. If the Navy Reserve signed up as many recruits as it did in 2005, enlisted end strength would drop from the 2005 levels by 12,500 sailors, to 47,000, and total end strength by 14,200, to 62,300 reservists. That level would represent a force more than 3,600 sailors smaller than that of the base case. In 2010, the Navy Reserve's end strength would be 5,800, or 8.5 percent, below the planned level.

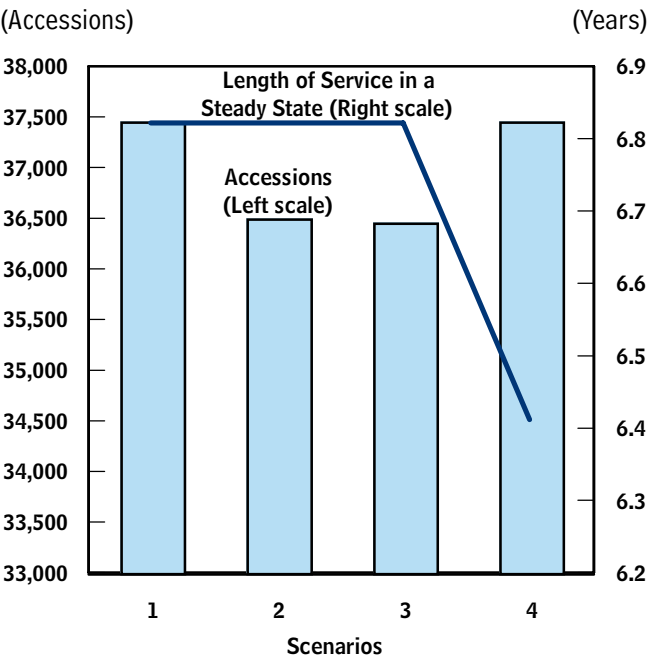
Under the third scenario—which examines the effect of a 1 percentage-point drop in continuation rates—enlisted

end strength would drop 1,700 more than it would in the base case. The size of the force would be 3,800 personnel (or 5.6 percent) less than the planned end strength.⁹

Under the final scenario—which illustrates the accession levels necessary to achieve the Navy’s planned end strength, holding continuation rates constant at the 2005 levels—only 8,750 accessions would be required in 2006 to maintain a force of 71,200 (the target stated in the FYDP). Accession levels in future years, however, would have to rise to achieve the desired end strength. By CBO’s calculations, for the Navy Reserve to achieve an end strength of 68,100 personnel for 2010 and beyond, the number of accessions would have to climb to 11,250 in 2007, 12,100 in 2008, and 12,500 in 2009 and then stabilize at just over 13,000 by 2010. If the Reserve’s NCS program succeeds in tapping a new segment of the recruiting market and if enhanced enlistment bonuses are effective, the Navy Reserve may be able to achieve those accession and end-strength targets.

9. Alternatively, if the higher reenlistment bonuses are effective, continuation rates may improve. A 1 percentage-point increase in continuation rates for all experience levels from the 2005 levels would, by 2010, increase end strength by about 1,700 personnel above the number in the base case. End strength would be just 400 under the planned level.

Figure 3-2.
Annual Accessions and Length of Service in the Active Navy Under Recruiting and Retention Scenarios



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (37,500 recruits) each year and continuation rates at the 2005 levels (86.2 percent overall).

Scenario 2 = Varying accession levels (36,500 recruits in 2006 and, thereafter, the numbers necessary to decrease the Navy’s end strength to targeted levels) and continuation rates at the 2005 levels.

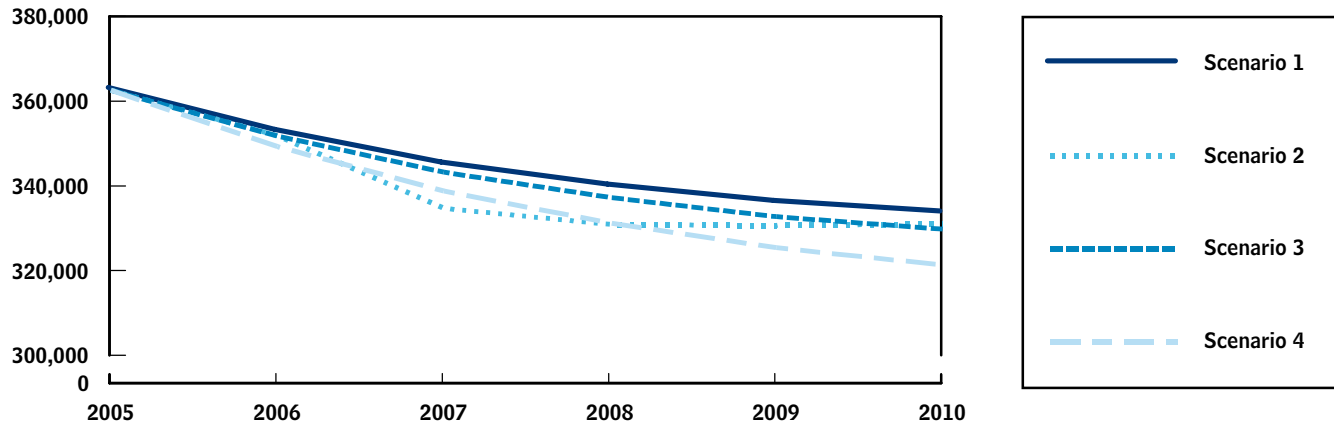
Scenario 3 = Accessions of 36,500 each year and continuation rates at the 2005 levels.

Scenario 4 = Accessions at the 2006 goal each year and continuation rates 1 percentage point lower than the 2005 levels.

Figure 3-3.

Effects of Recruiting and Retention Scenarios on the Active Navy's End Strength

(Number of personnel)



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (37,500 recruits) each year and continuation rates at the 2005 levels (86.2 percent overall).

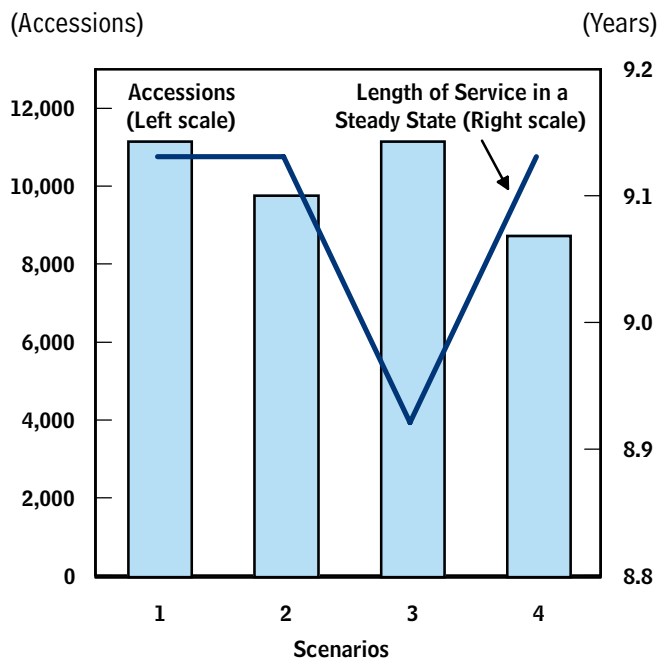
Scenario 2 = Varying accession levels (36,500 recruits in 2006 and, thereafter, the numbers necessary to decrease the Navy's end strength to targeted levels) and continuation rates at the 2005 levels.

Scenario 3 = Accessions of 36,500 each year and continuation rates at the 2005 levels.

Scenario 4 = Accessions at the 2006 goal each year and continuation rates 1 percentage point lower than the 2005 levels.

Figure 3-4.

Annual Accessions and Length of Service in the Navy Reserve Under Recruiting and Retention Scenarios



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (11,180 recruits) each year and continuation rates at the 2005 levels (78.3 percent overall).

Scenario 2 = Accessions at the 2005 level (9,788 recruits) each year and continuation rates at the 2005 levels.

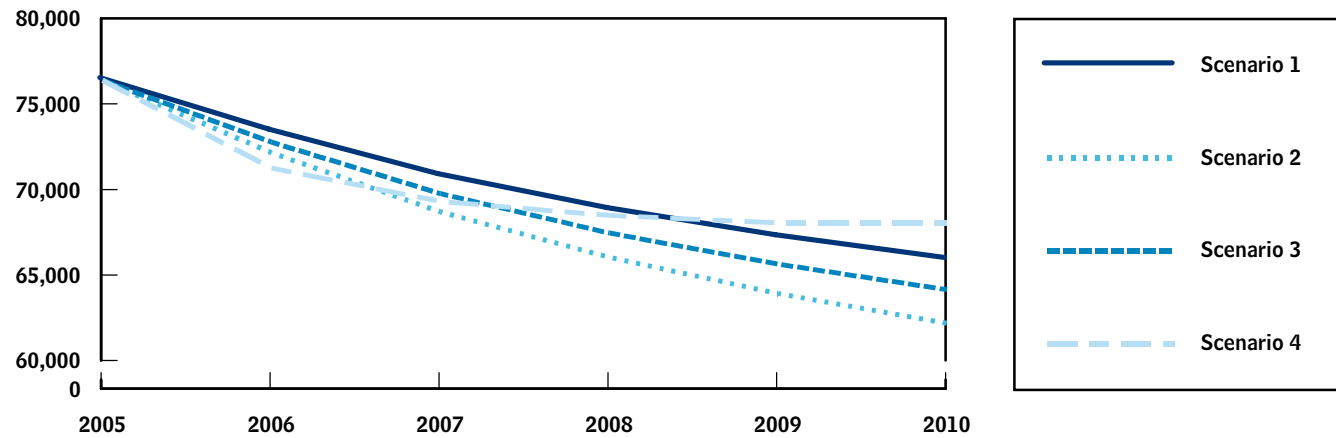
Scenario 3 = Accessions at the 2006 goal each year and continuation rates 1 percentage point lower than the 2005 levels.

Scenario 4 = Varying accession levels (8,750 recruits in 2006, rising to 13,000 recruits by 2009) and continuation rates at the 2005 levels.

Figure 3-5.

Effects of Recruiting and Retention Scenarios on the Navy Reserve's End Strength

(Number of personnel)



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (11,180 recruits) each year and continuation rates at the 2005 levels (78.3 percent overall).

Scenario 2 = Accessions at the 2005 level (9,788 recruits) each year and continuation rates at the 2005 levels.

Scenario 3 = Accessions at the 2006 goal each year and continuation rates 1 percentage point lower than the 2005 levels.

Scenario 4 = Varying accession levels (8,750 recruits in 2006, rising to 13,000 recruits by 2009) and continuation rates at the 2005 levels.

Recruiting, Retention, and End Strength in the Air Force

Between 2000 and 2005, the active Air Force's authorized end strength was relatively flat, declining from 360,900 personnel to 359,700. Actual end strength, however, varied, increasing from 355,700 personnel in 2000 to 368,200 in 2002 and peaking at 376,600 in 2004. At that point, actual end strength was almost 5 percent over the authorized level. In 2005, the Air Force had 353,700 personnel—which was about 23,000, or 6 percent, fewer than the level of the previous year (see Table 4-1).

Like the Navy, the Air Force is implementing planned reductions in its end strength. The Future Years Defense Program outlines a force size of 351,800 personnel for 2006 and of 334,200 for 2007, reflecting planned reductions of about 1,900 and 17,600 personnel, respectively (see Table 4-2 on page 70). For 2011, the planned end strength is 316,500 service members. According to the Air Force, a reorganization of the force, including phased retirements of some older aircraft systems, is among the reasons for the reductions.¹

Fluctuating within 1 percent to 2 percent from year to year, the authorized end-strength levels for the Air National Guard and the Air Force Reserve were relatively stable between 2000 and 2005 (see Table 4-1). Over that period, the Air National Guard's authorized level averaged about 107,000 personnel; and the Air Force Reserve's, about 75,000. Their actual end strength averaged about 108,000 and 75,000, respectively. In both instances, the components exceeded their authorized end strength during the early part of the war on terrorism

(2001 to 2003 for the Guard and 2001 and 2002 for the Reserve) but by less than 3 percent.²

The Future Years Defense Program outlines plans for the Air National Guard to have a force of 92,400 personnel by 2011 (a cut of 14,000, or 13.2 percent, from the 2005 level) and Air Force Reserve, of 67,800 by then (a cut of 8,000, or 10.6 percent, from the 2005 level) (see Table 4-3 on page 71 and Table 4-4 on page 72). The reductions for the reserve components begin in 2008.

The Quadrennial Defense Review calls for “reducing Air Force end strength by approximately 40,000 full-time equivalent personnel with balanced cuts across the total force.”³ The total drop among the three Air Force components between 2007 and 2011, as programmed in the 2007 FYDP, matches that objective.

Recruiting Trends

Undergoing reductions, the active and reserve components of the Air Force usually met their recruiting goals from 2000 to 2005: the active Air Force did so every year; the Reserve, every year but 2000; and the Guard, three of the years—falling short in 2001, 2004, and 2005. Through August 2006, those trends were continuing. Also, the active Air Force has had the highest-quality recruits among the active services, and the Air National Guard and Air Force Reserve have generally exceeded the Department of Defense's benchmarks.

1. See Frank Faykes, Director, Air Force Budget, “FY2007 Air Force Budget” (briefing prepared for Congressional staff, February 2006).

2. Stop-loss orders probably contributed to that situation.

3. Department of Defense, *Quadrennial Defense Review Report*, February 6, 2006, p. 417.

Table 4-1.**The Air Force's End Strength**

Fiscal Year	Active Air Force				Air National Guard			
	Authorized	Actual			Authorized	Actual		
		Enlisted Personnel	Officers	Total ^a		Enlisted Personnel	Officers	Total
2000	360,877	282,356	69,023	355,654	106,678	93,019	13,346	106,365
2001	357,000	280,410	68,862	353,571	108,022	95,060	13,425	108,485
2002	358,800	292,061	72,032	368,251	108,400	98,141	13,930	112,071
2003	359,000	297,219	73,758	375,062	106,600	94,435	13,702	108,137
2004	359,300	298,314	74,109	376,616	107,030	93,188	13,634	106,822
2005	359,700	276,117	73,252	353,696	106,800	92,758	13,672	106,430
2006	357,400	n.a.	n.a.	n.a.	106,800	n.a.	n.a.	n.a.

Source: Congressional Budget Office based on, for the active Air Force, the National Defense Authorization Act (various years) and Department of Defense, Directorate for Information Operations and Reports, Statistical Information Analysis Division, "Military Personnel Statistics," available at <http://siadapp.dior.whs.mil/personnel/MILITARY/Miltop.htm>; and, for the reserve components, the National Defense Authorization Act (various years) and Department of Defense, Defense Manpower Data Center, *Official Guard and Reserve Manpower Strengths and Statistics* (various years).

Note: n.a. = not available.

a. The active Air Force's total end strength each year includes about 4,000 cadets not otherwise classified.

Quantity of Recruits

The active Air Force met its recruiting goal each year between 2000 and 2005 and is adjusting its recruiting mission in line with the planned reductions in end strength. The number of accessions in 2005 reflected a sharp downsizing: the 19,000 that year represents almost a halving of the amount in 2004 (see Table 4-5 on page 73). Year-end levels in the service's Delayed Entry Program, expressed as a percentage of the coming year's goal, have increased to 43 percent or higher in recent years, as compared with levels closer to one-third in the late 1990s and early in the decade. Although the accession goal for 2006 increased to 30,750, that level represented about 5,250 fewer recruits than the average number that the Air Force had annually from 2000 through 2004. For 2006, as of August, the Air Force had recruited about 28,256 personnel—100 percent of its cumulative year-to-date goal and 92 percent of the total year's goal.

For the Air National Guard, accession goals fluctuated between 2000 and 2005, with a low of 5,700 in 2003 and a high of 11,800 in 2001 (see Table 4-5 on page 73). Actual accessions varied less—totaling 10,000 to 11,000 annually between 2000 and 2002 and decreasing to between 8,000 and 9,000 annually between 2003 and

2005. While the Air National Guard exceeded its lowest accession goal of the decade in 2003 (by 48 percent), it did not meet its goals in 2001, 2004, or 2005, falling short by 13 percent, 6 percent, and 14 percent, respectively. Because the next planned cuts in force size take effect in 2008, the goal of 9,380 recruits for 2006 is higher than the number attained in the past three years. As of August 2006, the Air National Guard was again falling short of its goal; it had recruited 8,207 personnel of the year-to-date goal of 8,518 (or 96 percent).

Recruiting an average of 8,300 personnel between 2000 and 2005, the Air Force Reserve met its recruiting goals, except in 2000, when it fell short by 20 percent (see Table 4-5 on page 73). As of August 2006, it had recruited about 6,803 personnel, compared with its cumulative year-to-date accession goal of about 6,606 (or 103 percent of its goal).

The drawdown in the active Air Force should provide a recruiting opportunity for the Air National Guard and the Air Force Reserve because of the greater availability of personnel with prior service that it provides. The extent to which the skills of those personnel match the reserve

Air Force Reserve			
Authorized	Actual		
	Enlisted Personnel	Officers	Total
73,708	55,676	16,664	72,340
74,358	57,660	17,209	74,869
74,700	59,330	17,302	76,632
75,600	57,949	16,805	74,754
75,800	58,598	16,724	75,322
76,100	59,126	16,676	75,802
74,000	n.a.	n.a.	n.a.

components’ needs is, of course, a factor that will help define the opportunity.

Quality of Recruits

Among the active services, the Air Force had the highest-quality recruits from 2000 to 2005. In each of those years, 99 percent of Air Force recruits were high school graduates, which was well above the Department of Defense’s benchmark of 90 percent (see Table 4-6 on page 74). Between 73 percent and 82 percent of the recruits scored at or above the median for the Armed Forces Qualification Test (or in categories I to IIIA). Similarly, in 2006, through August, 99 percent of the recruits held high school diplomas, and 78 percent were in AFQT categories I-III A.

For the Air National Guard and the Air Force Reserve, the quality of recruits is generally within DoD’s acceptable levels, although it has fallen below DoD’s benchmarks in some years: the proportion of Air National Guard recruits with high school degrees fell from 96 percent in 2000 to 85 percent in 2003 and then increased to 91 percent in 2005; the proportion of Air Force Reserve recruits with high school degrees dropped from 93 percent in 2000 to 87 percent in 2005 (see Table 4-6 on page 74). Also, for both components, recruits’ scores on

the AFQT have generally declined since the beginning of the decade.

Lower accession goals in 2006 and future years may allow the components to recruit higher-quality individuals. Indeed, data through August 2006 show improvements in all categories (compared with annual data from 2005). As of August 2006, 95 percent of the Air National Guard’s accessions were high school graduates, and 96 percent of the Air Force Reserve’s were. Similarly, 77 percent of the Guard’s accessions scored at or above the 50th percentile on the AFQT, and 78 percent of the Reserve’s did so (compared with 72 percent and 69 percent for the components in 2005, respectively).

Recruiting Resources

The Air Force’s expenditures on enlistment bonuses declined from a peak of \$124 million in 2001 to roughly one-half as much in 2004 (see Table 4-7 on page 75). A steeper drop occurred in 2005, when the expenditures were only \$21 million, reflecting the plunge in the accession goal associated with the planned reduction in end strength.⁴ For 2006, the Air Force’s budget devoted \$8 million to enlistment bonuses; and for 2007, it devotes \$17 million.

The number of recruiters in the active Air Force increased from about 1,200 in 2000 to peak at about 1,600 in 2002 and then decreased to roughly 1,450 in 2005 (see Table 4-8 on page 76). The active Air Force’s advertising expenditures exhibited the same pattern: they increased from \$49 million in 2000, peaked at \$72 million in 2002, and decreased to \$43 million in 2005. Expenditures on recruiter support averaged about \$37 million during the period. Presumably, the Air Force decreased the number of recruiters and advertising expenditures to meet its end-strength targets, particularly in 2005.

Like the other reserve components, the Air National Guard and Air Force Reserve offer enlistment bonuses to their prior-service and non-prior-service recruits (and affiliation bonuses to the former). Although expenditures on those incentives have been increasing since 2000, there was a sharp increase (of over 50 percent) in 2005 for the Guard, presumably reflecting its difficulties recruiting

4. Accessions in the Air Force dropped from about 34,000 active-duty personnel in 2004 to about 19,000 in 2005.

Table 4-2.**Plans for the Active Air Force's End Strength, as Specified in the Future Years Defense Program**

	Actual 2005	2006	2007	2008	2009	2010	2011
Enlisted Personnel	276,117	277,222	264,424	261,557	257,279	254,162	251,154
Officers	73,252	70,578	65,776	64,643	62,821	62,038	61,346
Cadets	4,327	4,000	4,000	4,000	4,000	4,000	4,000
Total	353,696	351,800	334,200	330,200	324,100	320,200	316,500

Source: Congressional Budget Office based on data from the Department of Defense's Future Years Defense Program, and Department of Defense, Directorate for Information Operations and Reports, Statistical Information Analysis Division, "Military Personnel Statistics," available at <http://siadapp.dior.whs.mil/personnel/MILITARY/Miltop.htm>.

(see Table 4-7 on page 75). Expenditures for enlistment bonuses for recruits with prior service almost tripled, to \$1.7 million; expenditures for affiliation bonuses almost doubled, to \$135,000; and those for enlistment bonuses for recruits without prior service increased by 44 percent, to \$12.6 million. The Air Force Reserve also increased its expenditures on those incentives in 2005 but by more modest amounts (19 percent overall). Instead, the Air Force Reserve increased expenditures on those incentives more substantially, by almost 75 percent, to \$8 million, in 2004.

The number of full-time Selected Reserve recruiters (or personnel supporting recruiting) for the Air National Guard and Air Force Reserve has not fluctuated widely this decade—averaging 547 and 385, respectively (see Table 4-8 on page 76). After a high of more than \$23 million spent on advertising and recruiting support in 2003, the Guard has spent progressively less on those resources over the decade. By 2005, its second consecutive year of recruiting shortfalls, it spent about \$19 million for that purpose. It also changed the mix of expenditures in recent years, boosting its expenditures supporting recruiters while reducing advertising spending. The Air Force Reserve spent about \$12 million on advertising in 2005, reflecting a stable pattern of spending on advertising (except in 2003, when the amount climbed to \$21 million). The component increased spending on recruiter support from \$5.9 million in 2000 to \$9.1 million in 2005.

Retention Trends

The Air Force also states its retention goals in terms of the percentage of personnel in certain experience categories who choose to reenlist. The component appears to face the greatest challenge in meeting its retention goal for midcareer active-duty personnel: between 2000 and 2005, it met its goals for such personnel only once, in 2002 (see Table 4-9 on page 77). In the same time period, it met its retention goals for first-term personnel most of the time and for career personnel, half of the time. In 2005, in particular, the Air Force did not meet its retention goals for first-term or midcareer personnel, but it did meet the retention goal for career personnel.

Because many of its personnel are trained in aircraft and aviation skills that are directly transferable, the Air Force probably faces greater competition from the private sector for larger segments of its personnel than do some of the other services. Retention incentives such as Selective Reenlistment Bonuses, Aviator Continuation Pay, and other pay for special occupations are among the retention tools available to the component. Like the Navy, the Air Force may still use retention incentives during end-strength reductions as a means of retaining personnel with special skills in high demand even while it releases other personnel. Between 2000 and 2005, the Air Force's SRB budget was at its highest levels in 2002 (\$232 million), 2003 (\$247 million), and 2004 (\$263 million) (see Table 4-7 on page 75); in those years, it met its retention goals in more of the experience categories than during the other years of the period. The decrease in SRB expenditures to \$238 million in 2005 coincided with the Air Force's not meeting its retention goals in two of the three

Table 4-3.

Plans for the Air National Guard's End Strength, as Specified in the Future Years Defense Program

	Actual 2005	2006	2007	2008	2009	2010	2011
Enlisted Personnel	92,758	92,500	92,669	84,825	83,262	81,599	80,035
Officers	13,672	14,297	14,331	13,075	12,838	12,601	12,365
Total	106,430	106,797	107,000	97,900	96,100	94,200	92,400

Source: Congressional Budget Office based on data from the Department of Defense's Future Years Defense Program, and Department of Defense, Defense Manpower Data Center, *Official Guard and Reserve Manpower Strengths and Statistics: Fiscal Year 2005 Summary*.

experience categories. For 2006 and 2007, the Air Force budgeted lower amounts—about \$214 million and \$195 million, respectively—presumably because of its planned reductions.

Overall year-to-year continuation rates of enlisted Air Force personnel have followed a general upward trend since the 1990s (see Figure 4-1 on page 79), similar to that for enlisted personnel in the Navy. The more pronounced increase in recent years (from 2000 through 2004) roughly coincided with the boost in SRB expenditures. However, the continuation rates dropped substantially, from an overall rate of 89.7 percent in 2004 to about 86.4 percent in 2005, coinciding with the decrease in SRB expenditures. As of February 2006, the overall continuation rate for the preceding 12 months was 87.5 percent.

Unlike the active Air Force, the reserve components focus on attrition (calculated, within a period, as the number of losses—regardless of service members' contractual end of obligation—divided by end strength) as a primary tool for managing the size and composition of the force. Attrition in the Air National Guard has remained below its 12 percent ceiling, except in 2003, when the rate reached 12.7 percent (see Table 4-10 on page 78). Attrition in the Air Force Reserve averaged less than 14 percent in the 2000-2005 period, below the 18 percent ceiling.

Continuation rates, as discussed previously, better facilitate year-to-year comparisons than do the retention and attrition numbers (see Figure 4-1 on page 79). For both the Air National Guard and the Air Force Reserve, since 2000 continuation rates peaked in 2002 and hit their lowest point in 2003—when most of the other service

components were experiencing their highest rates. In the Guard, the overall rate went from 93 percent in 2002 to 88 percent in 2003; in the Reserve, it went from 92 percent to 85 percent. The Air Force's stop-loss policy, which went into effect shortly after September 11, 2001, was partly responsible for the pattern. By late in 2002, the Air Force required service members who were mobilized or deployed to remain in the service regardless of the original date marking the end of their obligation. The policy was expanded in the spring of 2003 and then rescinded in late 2003.⁵ Continuation rates for both reserve components have since rebounded and are similar to those experienced in 2000 and 2001. In 2005, the overall rate for the Guard was 90 percent, and the 12-month rate through February 2006 remained about the same. The corresponding rates for the Reserve were both 87 percent.

The reserve components offer reenlistment bonuses to incumbent personnel. Expenditures for those incentives have been going up since 2000; for the Air National Guard, they tripled in 2005, to \$13 million.

Implications of Recruiting and Retention Trends for End Strength

To examine how the Air Force could meet its planned end strength, the Congressional Budget Office modeled several scenarios for the active Air Force, the Air National Guard, and the Air Force Reserve, taking September 30, 2005, as the starting point and projecting end strength forward from 2006 through 2010.

5. A small number of individuals no longer subject to the policy, however, may still have been processed out of the service through December 2003.

Table 4-4.

Plans for the Air Force Reserve's End Strength, as Specified in the Future Years Defense Program

	Actual 2005	2006	2007	2008	2009	2010	2011
Enlisted Personnel	59,126	57,061	57,662	53,790	53,117	52,912	52,245
Officers	16,676	17,017	17,238	16,110	15,883	15,788	15,555
Total	75,802	74,078	74,900	69,900	69,000	68,700	67,800

Source: Congressional Budget Office based on data from the Department of Defense's Future Years Defense Program, and Department of Defense, Defense Manpower Data Center, *Official Guard and Reserve Manpower Strengths and Statistics: Fiscal Year 2005 Summary*.

Active Air Force

If the Air Force maintained accessions and continuation rates at historically low levels over the next several years (the 2006 accession goal and the 2005 continuation rates), the size of the force would fall 11,300 below the level outlined in the FYDP by 2010, to 308,900 personnel, CBO estimates. The Air Force plans to reduce the number of officers (including cadets) from 77,600 in 2005 to 66,000 in 2010, or by 15 percent, and the number of enlisted personnel from 276,100 to 254,200, or by 8 percent. One way for the Air Force to attain its planned end strength by 2010 would be to recruit up to 32,500 personnel annually combined with substantially higher continuation rates for 2006 (similar to those in 2004) and, for 2007 and beyond, rates 1 percentage point higher than that (similar to those before September 11, 2001).

Again, in the four scenarios modeled for the active Air Force, CBO focused on enlisted end strength and assumed the same reduction in the number of officers as presented in the FYDP. The accession levels and continuation rates associated with the scenarios are as follows:

■ **Scenario 1, CBO's base case:** accessions totaling 30,750 each year, the recruiting goal for 2006; continuation rates for airmen in all experience categories at the 2005 levels (the overall rate was 86.4 percent). Except in 2005—when the Air Force exceeded its goal and recruited 19,200 airmen—the recruiting goal for 2006 represented the lowest level of accessions in recent history and a decline of about 5,000 since the beginning of the decade. Continuation rates in 2005

were the lowest since the mid-1990s, when the service was reducing its force size significantly. Those low levels may have derived, in part, from the Air Force's lower spending on enlistment and reenlistment bonuses to downsize the force.

- **Scenario 2:** accession levels at 29,750 annually; continuation rates at the 2005 levels. This case illustrates the cumulative effect that every cut of 1,000 accessions annually would have on end strength. A further decline in accessions could happen if the Air Force decided to cut end strength more quickly than outlined in the FYDP, if the Air Force offset higher retention (should retention improve) or if recruiting difficulties developed.
- **Scenario 3:** accessions of 30,750 (as in the base case); continuation rates 1 percentage point lower than the 2005 levels. This case shows the effect that an across-the-board decrease in continuation could have on end strength, with no offsetting increase in accessions. Because of its plans to draw down its force, the Air Force has adopted some policies (such as cutting reenlistment bonuses) to achieve lower continuation rates.
- **Scenario 4:** varying accessions of up to 32,500 annually; continuation rates up to 3.3 percentage points above the 2005 levels. In this scenario, CBO assumes 32,000 accessions for 2006 (which is higher than the 2006 goal), dropping to 25,000 in 2007 (the year that the Air Force plans its largest decrease in the size of the force), and then rising to 32,500 in 2008. Accessions

Table 4-5.**The Air Force's Total Accessions of Enlisted Personnel**

Fiscal Year	Active Air Force				Air National Guard			Air Force Reserve		
	Initial Objective	Final Objective	Actual Accessions	Percentage of Objective	Initial Objective	Actual Accessions	Percentage of Objective	Initial Objective	Actual Accessions	Percentage of Objective
2000	34,600	34,600	35,217	102	10,080	10,730	106	9,624	7,740	80
2001	34,600	34,600	35,381	102	11,808	10,258	87	8,051	8,826	110
2002	36,000	37,283	37,967	102	9,570	10,122	106	6,080	6,926	114
2003	32,078	37,000	37,141	100	5,712	8,471	148	7,512	7,557	101
2004	34,080	34,361	34,362	100	8,842	8,276	94	7,997	8,904	111
2005	24,465	18,900	19,222	100	10,272	8,859	86	8,801	9,942	113
2006	30,750	n.a.	n.a.	n.a.	9,380	n.a.	n.a.	6,780	n.a.	n.a.
Average, 2000–2004	34,272	35,569	36,014	n.a.	9,202	9,571	n.a.	7,853	7,991	n.a.

Source: Congressional Budget Office based on, for the active Air Force, data from the Department of Defense, Directorate for Accession Policy; and, for the reserve components, data from the Department of Defense, Office of Reserve Affairs.

Note: n.a. = not available or not applicable.

stabilize thereafter at 30,000. CBO also assumes that continuation rates for 2006 improve above 2005 levels by 3.3 percentage points (similar to those experienced in 2004) and thereafter are 1 percentage point higher than 2005 (similar to 2001 overall rates). This case illustrates the number of recruits necessary to decrease the size of the Air Force to its annual end-strength targets.

The Air Force has the most senior force among the active components, with the average length of service in 2005 at 8.61 years. Under the base case, the figure would fall to 7.30 years in a steady state (see Figure 4-2 on page 79). Should continuation rates fall a further 1 percentage point, the average length of service in a steady state would decline to 6.83 years. Should the Air Force attain its end-strength targets by recruiting fewer personnel than it had early in the decade and by returning to 2001 continuation rates, the average experience level would increase to 7.78 years.

Under the base-case scenario—with accessions and continuation rates at relatively low levels—end strength would drop steadily (see Figure 4-3 on page 80). By contrast, the FYDP shows the largest drops in planned end strength occurring in 2006 and 2007. According to CBO's modeling for this scenario, end strength would fall to 326,900 personnel for 2007, below the planned end

strength of 334,200 for that year, and end strength would remain below FYDP levels thereafter. By 2010, enlisted end strength in CBO's model would drop by 33,200, to 242,900, or by 12 percent. Total end strength would equal 308,900 personnel, a decline of 12.7 percent, and 11,300 personnel below its planned level.

The second scenario shows that each 1,000 decrease in annual accessions would result in an end-strength reduction of about 3,500 by 2010 from what it would have been otherwise. Under this scenario, the Air Force would be 14,800 personnel under planned end strength by 2010.

Under the third scenario, if continuation rates fell 1 percentage point from the 2005 levels, the size of the enlisted force would decrease to 232,200 by 2010, a decline of 15.9 percent from 2005; total end strength would be 298,200, or about 22,000 under planned end strength.

Recent data from DoD indicate that continuation rates (based on the enlisted personnel who were in the Air Force as of February 2005 and who remained in the service 12 months later) may have increased 1 percentage point above the 2005 level. Such an increase would accumulate to boost enlisted end strength by more than 11,000 personnel above the base case by 2010, CBO

Table 4-6.**The Quality of the Air Force's Recruits Without Prior Service**

(Percent)

Fiscal Year	Active Air Force		Air National Guard		Air Force Reserve	
	High School Graduate	AFQT Categories I-III A	High School Graduate	AFQT Categories I-III A	High School Graduate	AFQT Categories I-III A
2000	99	73	96	78	93	73
2001	99	75	98	79	93	73
2002	99	76	n.a.	85	92	73
2003	99	81	85	70	93	73
2004	99	82	n.a.	n.a.	91	73
2005	99	80	91	72	87	69

Source: Congressional Budget Office based on, for the active Air Force, data from the Department of Defense, Directorate for Accession Policy (partly available at www.dod.mil/prhome/docs/recqual04.pdf); and, for the reserve components, data from the Department of Defense, Office of Reserve Affairs.

Notes: AFQT = Armed Forces Qualification Test; n.a. = not available.

The Department of Defense divides the scores on the AFQT into five ranges, or categories. Scores at or above the 50th percentile fall into AFQT categories I through IIIA.

estimates, resulting in enlisted end strength of 254,100 and total end strength of 320,100. The Air Force would just meet its planned end strength.

Under the final scenario—which increases both accessions and continuation rates above the 2005 levels—the Air Force would reach yearly planned end-strength targets. In this scenario, the Air Force's end strength would drop by less than 2,000 personnel from 2005 to 2006, with the largest reduction (17,600) occurring in 2007. By 2010, the size of the force would be just 320,150.

Air National Guard

If the Air National Guard attained its 2006 accession goal and adopted policies that kept continuation rates constant at the 2005 level for the next several years, the size of the force would drop from 106,400 personnel in 2005 to 103,000 in 2010, CBO estimates. That number would be significantly higher than the end-strength level of 94,200 planned for in the FYDP. Furthermore, if the Air National Guard maintained the number of accessions at the 2004 level (the lowest level in recent history), the size of the force would drop to 98,700 personnel in 2010—still exceeding the planned level by 4,500 personnel, or 4.7 percent.

In the three scenarios modeled, CBO assumes that officer end strength declines as presented in the FYDP, from

13,700 in 2005 to 12,600 in 2010. As of September 30, 2005, the beginning point for the scenarios, actual end strength was 106,400 personnel. The continuation rates and accession levels associated with the scenarios are as follows:

- **Scenario 1, CBO's base case:** accessions of 9,380 (the 2006 goal) for each year through 2010; continuation rates at the 2005 levels, 90.4 percent overall. That level of accessions is just higher than the average of 9,200 from 1998 to 2005. Those continuation rates are similar to those experienced in 2001 but are a percentage point higher than those in 2000.
- **Scenario 2:** accessions of 8,276 (the number of recruits attained in 2004) for each year through 2010; continuation rates at the 2005 levels. This case illustrates what would happen to end strength if the Guard experienced recruiting difficulties similar to those in 2004. Fiscal year 2004 marked the fewest recruits the Air National Guard had signed up since at least 1998. (The following year, the Guard obtained almost 600 more recruits, although it still did not meet its goal.)
- **Scenario 3:** accessions at the same level as in the base case; continuation rates for all experience levels 1 percentage point lower than the 2005 levels.

Table 4-7.**The Air Force's Spending on Reenlistment and Enlistment Bonuses**

(Millions of current dollars)

Fiscal Year	Active Air Force		Air National Guard		Air Force Reserve	
	Selective Reenlistment Bonuses	Enlistment Bonuses	Reenlistment Bonuses	Enlistment Bonuses	Selective Reenlistment Incentive Program	Enlistment Bonuses
2000	125.7	83.3	1.9	1.5	2.3	3.0
2001	168.7	123.8	3.1	2.9	4.1	3.5
2002	232.1	89.3	4.6	7.3	2.3	3.7
2003	246.7	95.5	5.7	10.7	2.5	4.7
2004	262.6	63.1	4.0	9.4	3.5	8.0
2005	237.9	21.0	13.4	14.4	3.5	9.6

Source: Congressional Budget Office based on, for the active Air Force, data from the Department of Defense, Directorate for Accession Policy and Directorate for Officer and Enlisted Personnel Management; and, for the reserve components, data from the Department of Defense's personnel budget books, available at www.dod.mil/comptroller/defbudget/fy2007/index.html.

Compared with that in most of the other components, the average length of service in the Air National Guard in 2005 was relatively high, at 12.9 years. In the base case, the average length of service in a steady state would fall to 12.2 years (see Figure 4-4 on page 81). Should continuation rates fall a further 1 percentage point, that figure would decline to 11.7 years.

In the base case—with accessions at the 2006 goal and continuation rates at the 2005 levels—enlisted end strength would fall by 2,300 personnel, or 2.5 percent, to 90,400 in 2010; total end strength, by 3,400, or 3.2 percent, to 103,000 (see Figure 4-5 on page 82). That overall decline would be largely as planned through 2007 but slower than planned thereafter. By 2010, end strength would be 8,800, or 9.4 percent, more personnel than planned.

Under the second scenario—which continues the recruiting difficulties that the Air National Guard had in 2004 and 2005—the overall size of the force would drop an additional 4,400 personnel below that of the base case, but it would still exceed the planned number by 4,500 personnel, or 4.7 percent, in 2010.

The final scenario—which illustrates the effect if the Air Force chose policies to lower continuation rates to reduce its end strength—yields a decline of 5,900 enlisted airmen over five years. Enlisted and total end strength under this scenario would drop 3,600 further than the levels

presented in the base case, but total end strength would still exceed the planned level by 5,200 personnel, or 5.6 percent, in 2010. Continuation rates spanning the 12 months that ended in February 2006 dropped slightly (by 0.2 percentage points), to 90.2 percent overall.

Air Force Reserve

If the Air Force Reserve maintained accessions at the 2006 goal (the lowest this decade) and continuation rates at the 2005 levels, the size of the force would drop from 75,800 personnel in 2005 to about 68,800 in 2010, essentially the level outlined in the FYDP. The Air Force plans a reduction in the number of officers of 5.3 percent, from 16,700 in 2005 to 15,800 in 2010, and a reduction in the number of enlisted personnel of 10.5 percent, from 59,100 to 52,900.

For its three scenarios, CBO assumed the same decline in officer end strength as presented in the FYDP. The continuation rates and accession levels associated with the scenarios are as follows:

- **Scenario 1, CBO's base case:** accession levels at 6,800 each year (the 2006 goal) through 2010; continuation rates at the 2005 levels (overall, at 87.3 percent). That level of accessions would represent the lowest in at least the past eight years (average accessions between 1998 and 2005 were 8,300). Continuation rates in 2005 were similar to those experienced in 2000 but almost a percentage point lower than those in 2001.

Table 4-8.**The Air Force's Recruiting Resources**

Fiscal Year	Active Air Force			Air National Guard			Air Force Reserve		
	Recruiters	Recruiter Support (Millions of dollars)	Advertising (Millions of dollars)	Recruiters	Recruiter Support (Millions of dollars)	Advertising (Millions of dollars)	Recruiters	Recruiter Support (Millions of dollars)	Advertising (Millions of dollars)
2000	1,215	31.1	49.0	506	a	12.3	355	5.9	12.2
2001	1,325	35.5	58.7	556	a	19.5	372	6.1	9.5
2002	1,574	39.8	72.0	536	a	15.5	394	6.5	12.0
2003	1,494	36.2	57.3	556	4.5	18.8	398	7.3	21.0
2004	1,460	36.2	54.7	573	4.1	16.2	394	7.3	12.5
2005	1,453	41.3	42.8	552	6.3	12.8	398	9.1	12.1

Source: Congressional Budget Office based on, for the active Air Force, data from the Department of Defense, Directorate for Accession Policy; and, for the reserve components, data from the Department of Defense, Office of Reserve Affairs, and selected Department of Defense budget books and related justification materials.

Note: For the active Air Force, statistics reflect the average number of recruiters for the year. For the reserve components, they reflect the number of full-time reservists filling positions as recruiters or recruiter support personnel as of the end of the year.

a. Expenditures for advertising and recruiter support were consolidated from 2000 to 2002.

- **Scenario 2:** accession levels of 6,300 (a reduction of 500 from the 2006 goal); continuation rates at the 2005 levels.
- **Scenario 3:** accessions similar to those in the base case; continuation rates 1 percentage point lower than the 2005 levels.

Because the Air Force Reserve draws heavily on experienced individuals from the active Air Force, the average length of service in 2005 was relatively high, at 13.7 years. Under the base case, in a steady state, that level would fall to 12.3 years (see Figure 4-6 on page 83). Should continuation rates fall 1 percentage point further, the average experience level in a steady state would decline to 11.9 years.

In the base case—with accession levels at the 2006 goal and continuation rates at the 2005 levels—enlisted end strength in the Air Force Reserve would, except in 2007,

be somewhat higher than the planned level through 2010. It would fall by 6,100 personnel, to 53,000 by 2010; total end strength, by 7,000 personnel, to 68,800 (see Figure 4-7 on page 84). End strength would be just 100 personnel higher than the level planned for by 2010.

CBO's second scenario shows that a decrease of 500 recruits would translate into a drop of about 1,800 enlisted airmen by 2010. At 67,000 personnel, total end strength would be 1,700, or 2.4 percent, below the planned level.

Under the final scenario, with a 1 percentage-point drop in continuation rates (either because the Reserve adopted additional policies to reduce personnel or because the retention environment deteriorated)—enlisted end strength would drop by 2,100 more personnel than it would in the base case. Continuation rates spanning the 12 months that ended in February 2006 dropped slightly (0.2 percentage points), to 87.1 percent overall.

Table 4-9.**The Active Air Force's Retention of Enlisted Personnel**

(Percent)

Fiscal Year	Initial Enlistments			Midcareer Personnel			Careerists		
	Actual	Goal	Attainment of Goal	Actual	Goal	Attainment of Goal	Actual	Goal	Attainment of Goal
2000	53.1	55.0	No	69.7	75.0	No	90.8	95.0	No
2001	56.1	55.0	Yes	68.9	75.0	No	90.2	95.0	No
2002	72.1	55.0	Yes	78.3	75.0	Yes	94.6	95.0	No
2003	60.5	55.0	Yes	72.9	79.0	No	95.2	95.0	Yes
2004	63.0	55.0	Yes	70.0	75.0	No	97.0	95.0	Yes
2005 ^a	39.0	52.0	No	67.0	69.0	No	85.0	85.0	Yes

Source: Congressional Budget Office based on data from the Department of Defense, Directorate for Officer and Enlisted Personnel Management.

Note: Initial enlistments (termed zone A) covers airmen with less than six years of service. Midcareer personnel (zone B) have at least six years of service but less than 10. Careerists (zone C) have 10 to 14 years of service.

a. The Air Force introduced a new metric—average career length—in July 2005, so rates for that year cannot be compared with earlier ones.

Table 4-10.**The Air National Guard's and Air Force Reserve's Attrition Rates**

Fiscal Year	Air National Guard		Air Force Reserve	
	Actual Percentage	Percentage Relative to Ceiling	Actual Percentage	Percentage Relative to Ceiling
2000	11.0	91.7	13.9	77.3
2001	9.6	80.3	13.4	74.6
2002	7.3	60.4	8.7	48.3
2003	12.7	105.8	17.0	94.3
2004	11.5	96.0	13.6	75.7
2005	10.2	85.2	14.7	81.5
Memorandum:				
Attrition Ceiling	12.0	n.a.	18.0	n.a.

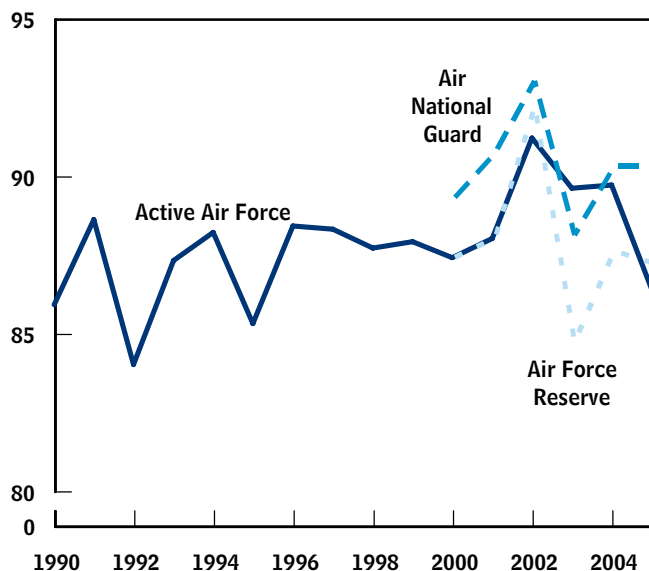
Source: Congressional Budget Office based on data from the Department of Defense, Defense Manpower Data Center.

Note: n.a. = not applicable.

Figure 4-1.

The Air Force's Annual Continuation Rates

(Percent)



Source: Congressional Budget Office based on data from the Department of Defense, Defense Manpower Data Center.

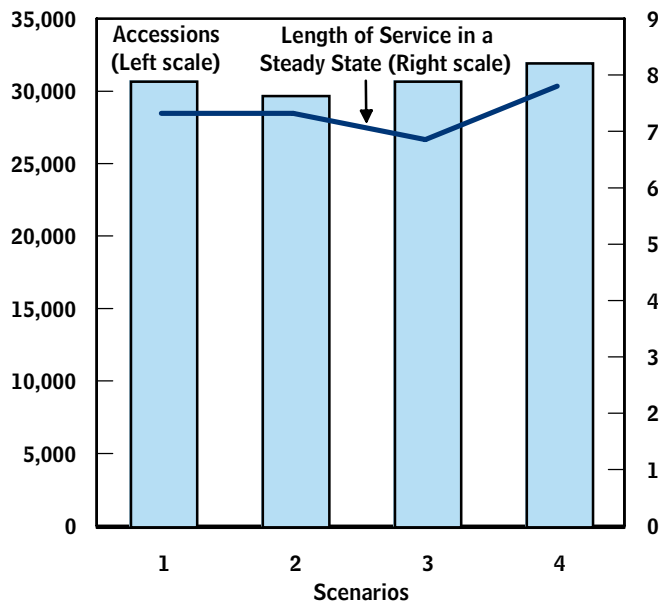
Note: Data on the Air National Guard's and Air Force Reserve's continuation rates before 2000 are not available.

Figure 4-2.

Annual Accessions and Length of Service in the Active Air Force Under Recruiting and Retention Scenarios

(Accessions)

(Years)



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (30,750 recruits) each year and continuation rates at the 2005 levels.

Scenario 2 = Accessions of 29,750 recruits each year and continuation rates at the 2005 levels.

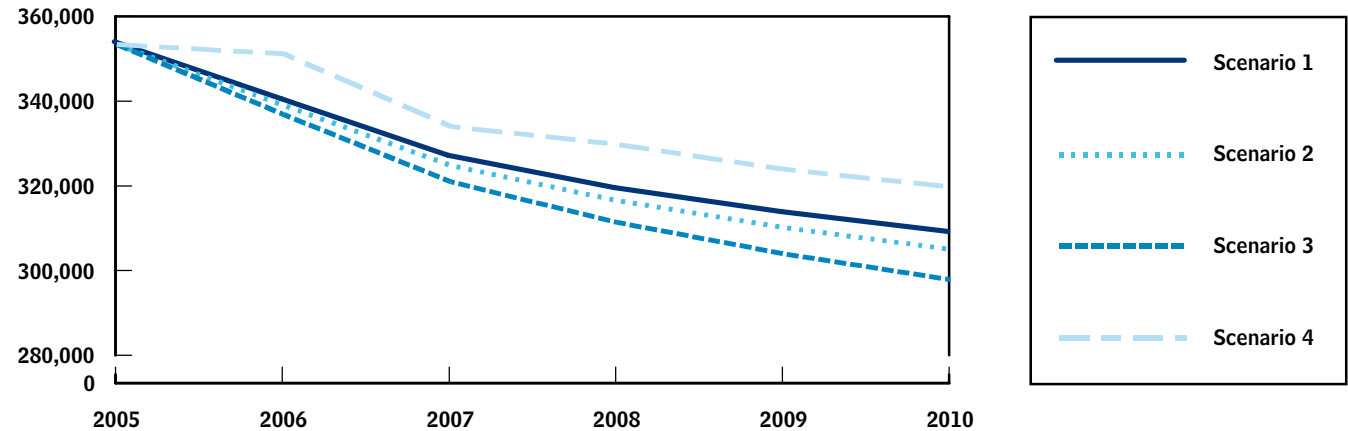
Scenario 3 = Accessions at the 2006 goal and continuation rates 1 percentage point lower than the 2005 levels.

Scenario 4 = Accessions of 32,000 in 2006 and varying thereafter and continuation rates up to 3.3 percentage points higher than the 2005 levels.

Figure 4-3.

Effects of Recruiting and Retention Scenarios on the Active Air Force's End Strength

(Number of personnel)



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (30,750 recruits) each year and continuation rates at the 2005 levels.

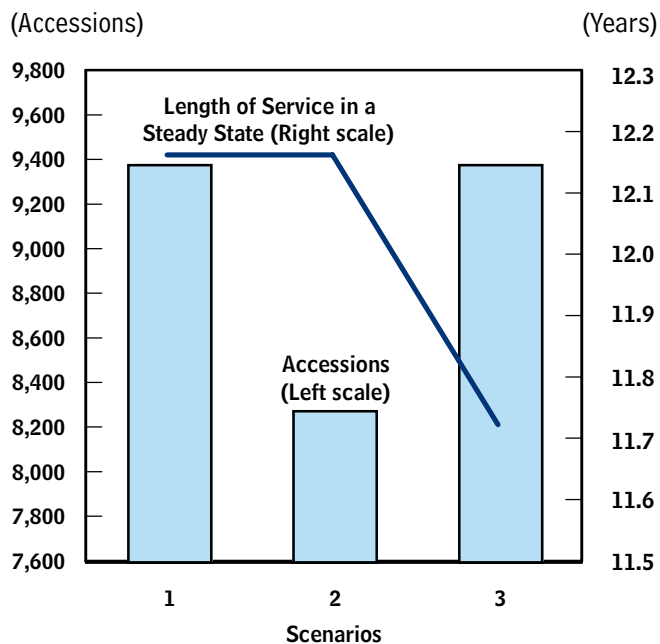
Scenario 2 = Accessions of 29,750 recruits each year and continuation rates at the 2005 levels.

Scenario 3 = Accessions at the 2006 goal and continuation rates 1 percentage point lower than the 2005 levels.

Scenario 4 = Accessions of 32,000 in 2006 and varying thereafter and continuation rates up to 3.3 percentage points higher than the 2005 levels.

Figure 4-4.

Annual Accessions and Length of Service in the Air National Guard Under Recruiting and Retention Scenarios



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (9,380 recruits) each year and continuation rates at the 2005 levels (90.4 percent overall).

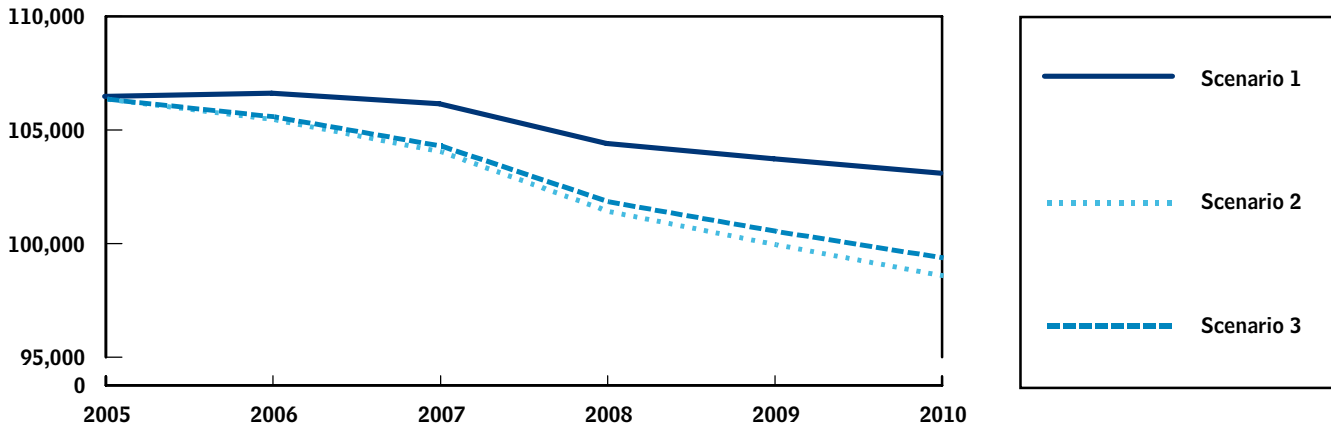
Scenario 2 = Accessions at the 2004 level (8,276 recruits) each year and continuation rates at the 2005 levels.

Scenario 3 = Accessions at the 2006 goal and continuation rates 1 percentage point lower than the 2005 levels.

Figure 4-5.

Effects of Recruiting and Retention Scenarios on the Air National Guard's End Strength

(Number of personnel)



Source: Congressional Budget Office.

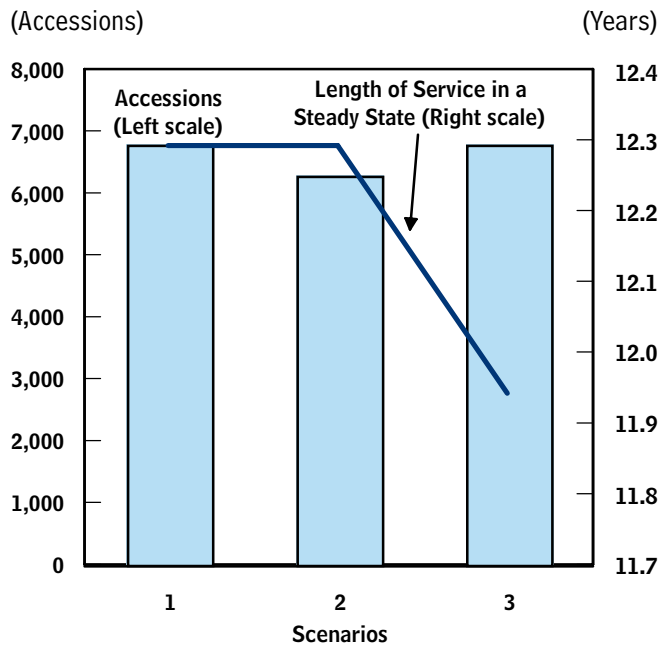
Note: Scenario 1 (Base case) = 2006 accession goal (9,380 recruits) each year and continuation rates at the 2005 levels (90.4 percent overall).

Scenario 2 = Accessions at the 2004 level (8,276 recruits) each year and continuation rates at the 2005 levels.

Scenario 3 = Accessions at the 2006 goal and continuation rates 1 percentage point lower than the 2005 levels.

Figure 4-6.

Annual Accessions and Length of Service in the Air Force Reserve Under Recruiting and Retention Scenarios



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (6,800 recruits) each year and continuation rates at the 2005 levels (87.3 percent overall).

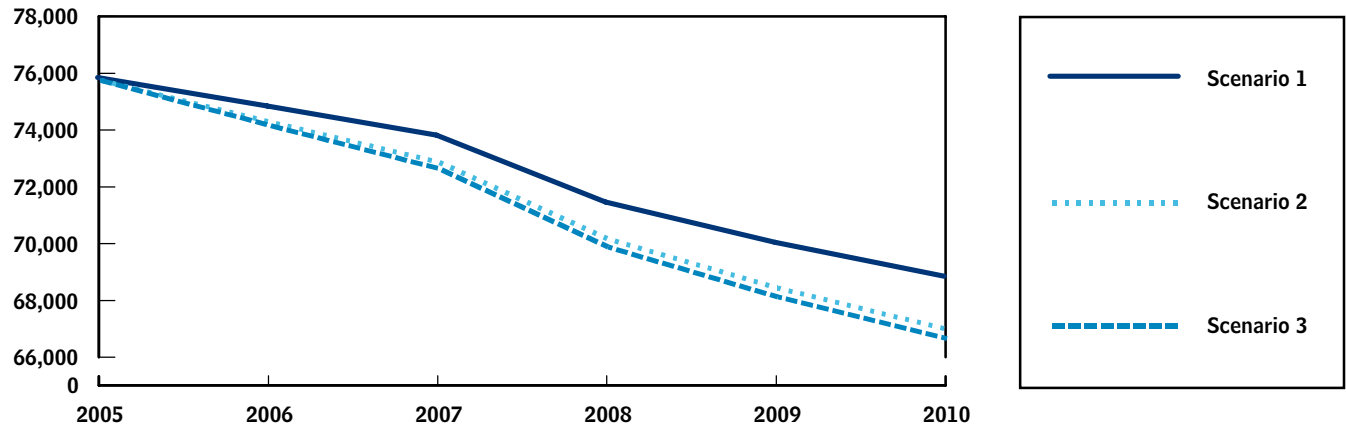
Scenario 2 = Accessions of 6,300 recruits each year and continuation rates at the 2005 levels.

Scenario 3 = Accessions at the 2006 goal and continuation rates 1 percentage point lower than the 2005 levels.

Figure 4-7.

Effects of Recruiting and Retention Scenarios on the Air Force Reserve's End Strength

(Number of personnel)



Source: Congressional Budget Office.

Note: Scenario 1 (Base case) = 2006 accession goal (6,800 recruits) each year and continuation rates at the 2005 levels (87.3 percent overall).

Scenario 2 = Accessions of 6,300 recruits each year and continuation rates at the 2005 levels.

Scenario 3 = Accessions at the 2006 goal and continuation rates 1 percentage point lower than the 2005 levels.

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Research Studies on the Effectiveness of Recruiting Resources

In order to better understand the effectiveness of recruiting resources, the Congressional Budget Office (CBO) reviewed the published research on enlistment. In general, the studies analyze the relationship between the number of high-quality recruits and the resources devoted to recruiting (such as recruiters, advertising, bonuses, and so forth). CBO's summary of the studies (in Table B-1) focuses on the better-known studies and those that employ well-established analytical techniques.

The studies typically account for many of the factors that influence youths to join the military in addition to the recruiting resources and practices employed by the services. The factors controlled for include economic factors (for example, civilian pay, military pay, and civilian unemployment rates), demographic factors (the percentage of the population who are of military age, the percentage of youth attending college, the percentage of the

local population who are veterans, and so on), recruiting resources (the number of recruiters, advertising, enlistment bonuses, and educational benefits), and the possible cross-effect of one service's recruiting activities on the others'. Unlike the previous generation of enlistment analyses, these more recent studies also control for recruiters' effort in addition to the number of recruiters themselves. The effort that recruiters devote to different categories of recruits (for example, high-quality versus low-quality recruits or ones for active components versus reserve components) can vary depending on the incentives they have.

The studies' estimates of elasticities for recruiters, advertising, enlistment bonuses, and educational benefits are listed in Table B-1 and condensed in Table 1-8 on page 18. Appendix A contains the full citations for the studies as well as other related reports.

Table B-1.

Elasticities for the Active Army Reported in Research Studies That CBO Used to Compare the Effectiveness of Recruiting Resources

Study	Time Period	Recruiters	Advertising ^a	Educational Benefits ^b	Enlistment Bonuses ^c
Warner and Simon (2005)	1988–2005	4.0–6.0	0.5–0.9	0.3	0.3
Warner and Simon (2004)	1989–2003	5.5–7.1	0.5–0.7	n.a.	n.a.
Warner, Simon, and Payne (2001)	1990s	5.0	1.6	3.3	1.2
Murray and McDonald (1999)	1983–1987	5.1	n.a.	0.7	0.8
	1990–1993	6.0	n.a.	0.1	0.03
Berner and Daula (1993)	1980–1990	2.7	2.1	-0.4	4.6
Goldberg (1991)	1980–1988	1.5	0.5	1.4	-2.9
Polich, Dertouzos, and Press (1986)	1981–1984	6.0	0.6	n.a.	n.a.
Daula and Smith (1985)	1980–1984	5.9–1.1	0.7–1.3 ^d	n.a.	n.a.

Source: Congressional Budget Office based on the research reports listed in Appendix A.

Notes: Elasticities reflect changes in the number of enlistments resulting from a 10 percent change in each recruiting resource.

n.a. = not applicable.

- a. Advertising measured in dollar expenditures, unless otherwise noted.
- b. Educational benefits measured as the discounted present value of benefits from the Army College Fund.
- c. Enlistment bonuses measured as the discounted present value of bonus amounts.
- d. Measured in terms of the number of times people are exposed to the advertisements, not expenditures.